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The 1936 Iowa Corn Yield Test

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Bureau of Plant Industry, United States Department of Agriculture
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SUMMARY

1. Eight hundred seventy-nine entries were made in the 10 harvested districts of the 1936 Iowa Corn Yield Test. The yield test fields in districts 4 and 7 were abandoned because of crop failure. The entries were divided into four groups; regular open-pollinated, experimental open-pollinated, regular hybrids and experimental hybrids.

2. Data were obtained for each entry on acre yield, percentage stand, moisture content at time of harvest, lodging resistance, ear height, percentage of dropped ears and percentage of damaged kernels.

3. The outstanding feature of the 1936 Iowa Corn Yield Test was the superior performance of the hybrid combinations as compared with the open-pollinated varieties. The average yield of all hybrid entries in the 10 fields was 30.8 percent greater than for the open-pollinated strains. In District 11 the hybrids averaged 53.9 percent greater yield than the open-pollinated varieties. The hybrids in District 1, however, had an advantage of only 6.6 percent. This is attributed to the damage wrought by a severe hail storm the latter part of August which brought the effective growing season to a premature end. In addition to producing a greater yield the two classes of hybrid entries had much more lodging resistance.

4. The long, dry growing season resulted in a crop of sound corn. The percentages of damaged seed this year were much less than in 1935 when an early freeze caught many of the strains short of maturity.

5. The hybrid entries in past tests have tended to perform relatively better in the western and central districts of the state than in the eastern districts. Such was not the case this year as the average percentage increase of the hybrid class in the four eastern-most fields was fully as great as in other districts.

6. Tests made to determine the yield and stand obtained by planting samples of seed of different germinating percentages at planting rates to give the same theoretical stand showed the yields and stands from three lots of seed to be approximately equal.

7. Seed treatment of the regular entries in the open-pollinated and regular hybrid classes did not appreciably affect either the stand or yield in three of the four sections. In the Southern Section, however, a decrease in yield and stand resulted from treatment. The greatest decrease came in District 12.

8. The highest yielding section entries in the three classes in each of the four sections with the name of the entrant are:

Regular Open-Pollinated Class

Northern Section	Golden Krug	by Albert M. Schmitz
North Central Section	Golden Krug	by Albert M. Schmitz
South Central Section	Morcorn	by Ronald M. Wilson
Southern Section	Reid Yel. Dent	by T. Bonar McKee

Regular Hybrid Class

Northern Section	National Hybrid 110	by Sioux City Seed Co.
North Central Section	North Central Iowealth BA	by Sioux City Seed Co.
South Central Section	Iowealth 25B	by Sioux City Seed Co.
Southern Section	Iowa Hybrid 13	by U.S.D.A. & Farm Crops

Experimental Hybrid Class

Northern Section	Iowa Hybrid 3215	by U.S.D.A. & Farm Crops
North Central Section	Iowa Hybrid 3088	by U.S.D.A. & Farm Crops
South Central Section	Iowa Hybrid 3342	by U.S.D.A. & Farm Crops
Southern Section	Iowa Hybrid 3395	by U.S.D.A. & Farm Crops

9. The Banner Trophy was awarded to the U.S.D.A. and Farm Crops Subsection for the performance of their entry, Iowa Hybrid 13, in the Southern Section. This hybrid made the greatest relative increase in yield over the average open-pollinated varieties in the history of the Iowa Corn Yield Test. Iowa Hybrid 13 yielded 26.9 percent more corn than the average of its class and 79.0 percent more than the average of the open-pollinated class.

10. Some of the experimental hybrid entries look extremely promising. Especially is this true in the Northern Section where there is need for a high yielding corn which has early maturity and will retain its ears on the stalk in the fall.

11. In 4 of the 10 fields the lowest yielding strain of all classes of entries was a regular hybrid. This strikingly demonstrates that not all hybrids are good, and the purchaser of hybrid seed should buy only known hybrids of proven worth.

The 1936 Iowa Corn Yield Test[1]

M. M. Rhoades[2] and Joe L. Robinson[3]

PURPOSE

The purpose of the Iowa Corn Yield Test is to find for each district of the state those strains of corn which produce the greatest yield, mature properly, possess resistance to lodging, have good quality, or other characteristics which might make them desirable. Significant differences in these characteristics between different strains of corn grown in well replicated test fields may be attributed to differences inherent in the strains.

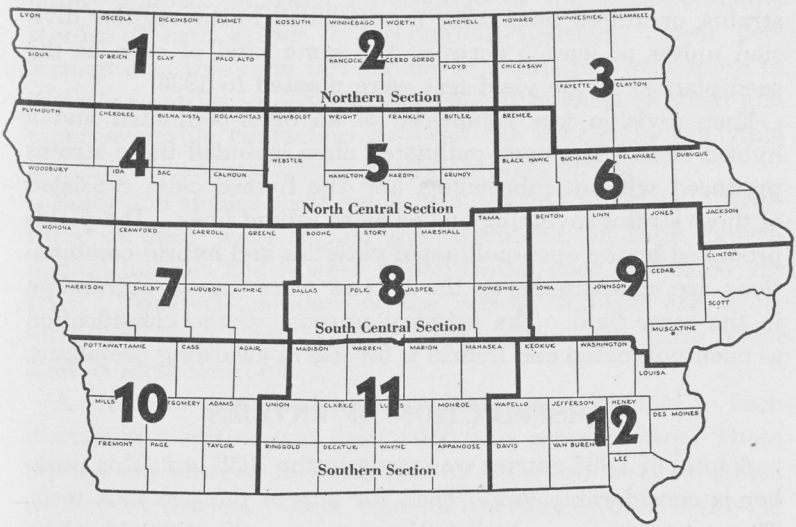

Fig. 1. The division of the state into sections and districts for the Iowa Corn Yield Test.

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[1] Project 161 of the Iowa Agricultural Experiment Station.

The Iowa Corn Yield Test is conducted by the Iowa Corn and Small Grain Growers' Association in cooperation with the Farm Crops Subsection, Iowa Agricultural Experiment Station, and the Division of Cereal Crops and Diseases, Bureau of Plant Industry, United States Department of Agriculture.

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The authors wish to express their appreciation to George W. Kohler and Adin Rouze for assistance in conducting the 1936 Iowa Corn Yield Test.

PLAN

The test was conducted in a manner similar to that of the past several years, but 12 fields, instead of 9, were planted in 1936 for the first time since the 1932 test. Data were obtained, as in 1935, on the percentages of dropped ears and diseased kernels at the time of harvest.

CLASSES OF ENTRIES

The entries were divided into two divisions, regular and experimental. Each variety, strain, or hybrid was classified in the regular division if at least 5 acres were planted in the spring and if there was a minimum of 25 bushels of seed available on Dec. 1. First generation crosses between varieties, strains, or inbred lines were not included in the regular division unless at least 5 acres of the same kind of corn as the seed planted in the yield test were planted in 1936.

Each division was comprised of an open-pollinated and a hybrid class. The open-pollinated class included those strains produced without inbreeding, and the hybrid class consisted of those strains involving one or more inbred lines. The yields produced by the open-pollinated varieties and hybrid combinations are comparable, as the entries were grown at random in the same field. The primary purpose of the classification as open-pollinated and hybrid is for use in awarding premiums.

DISTRIBUTION OF ENTRIES

A total of 1,084 entries was made in the 1936 test. This number is considerably larger than for any of the previous tests. The entries were well distributed among the 12 fields. District 11, with 66 entries, had the fewest and District 9, with 115 entries, the most. The severe drouth in western Iowa caused the yield test fields in districts 4 and 7 to be abandoned. This reduced the number of entries harvested from 1,084 to 879. More than one-half of the 879 entries were in the regular division: 451 were regular hybrids and 92 regular open-pollinated entries. Forty-nine entries originally made in the regular division were changed to the experimental division either because of failure to have a minimum of 25 bushels of seed or

failure to report the quantity of seed available. There were 336 experimental entries of which 318 were in the hybrid class.

Composite samples, each including seed from several growers, were entered in the experimental open-pollinated class in districts 1, 2, 5, 6, 8, 9, 10, 11 and 12. These composite samples were contributed by members of Smith-Hughes vocational agriculture classes. Each member furnished a small sample of open-pollinated seed corn similar to that planted on his home farm. In obtaining the composite sample a definite number of kernels was taken from each sample supplied by a school. The composite samples were planted in the district from which the samples originated. It is believed these composite samples approach an average of the open-pollinated strains of corn grown in the various districts. Their performance in the yield test should be compared with those of the other entries in order to evaluate differences in yield and other desirable characters between the entries in the yield test and of corn commonly grown on Iowa farms.

Sixty-one entries were made from outside the state. Thirty-three of these were regular hybrid entries, 26 were experimental hybrids and 2 were experimental open-pollinated entries. Inasmuch as some of the regular hybrids are being offered to Iowa growers, their entry in the Iowa Corn Yield Test is most welcome.

A strain or combination entered by one individual in each district of a section was designated as a section entry. Those strains not entered in each field of a section were classified as district entries. There were 324 section entries involving 783 district entries in the total of 879 entries. The high percentage of strains of corn entered on a section basis is highly desirable since the data obtained on the characters of a strain in the two or three fields of a section give far more valuable information concerning its possible usefulness over a wide area than do data from a single field. The distribution of entries by divisions and classes in districts and sections is shown in table 1.

TABLE 1. DISTRIBUTION OF DISTRICT AND SECTION ENTRIES IN THE 1936 IOWA CORN YIELD TEST

District	Regular			Experimental			Grand total
	O. P.	H	Total	O. P.	H	Total	
1	10	40	50	2	31	33	83
2	11	38	49	1	26	27	76
3	11	38	49	0	34	34	83
5	12	56	68	1	25	26	94
6	10	60	70	2	28	30	100
8	10	56	66	2	46	48	114
9	8	54	62	2	51	53	115
10	7	36	43	3	29	32	75
11	5	36	41	2	23	25	66
12	8	37	45	3	25	28	73
Total	92	451	543	18	318	336	879
			Section Entries				
Northern	10	38	48	0	23	23	71
North Central	10	55	65	0	19	19	84
South Central	6	54	60	1	44	45	105
Southern	5	36	41	0	23	23	64
Total	31	183	214	1	109	110	324

LOCATION OF TEST FIELDS

The state was divided into four sections, Northern, North Central, South Central and Southern. Each section was in turn divided into three districts, Western, Central and Eastern, making a total of 12 districts. Unfortunately, the loss of the fields in districts 4 and 7 left only two fields in the North Central and South Central sections, respectively. A test field was located in each district. This permitted the comparison of different kinds of corn under local conditions. The small, early maturing strains of northern Iowa, therefore, competed with one another under the conditions to which they were best suited, while the larger, later varieties were compared under conditions to which they were best adapted. The location of the test fields for 1936 is indicated in table 2.

IDENTIFICATION OF ENTRIES

Each entry was given a number by which it was known throughout the season. These numbers, with the corresponding names and addresses of the owners of the samples which they represented, were sealed and placed in the College Savings Bank at Ames at planting time and were not opened until the computation of results had been completed.

TABLE 2. LOCATION OF FIELDS AND DATES OF PLANTING AND HARVESTING THE 1936 IOWA CORN YIELD TEST.

Dist.	Cooperator	Post office	County	Date planted	Date harvested
1	Paul Carstensen	Royal	Clay	May 14	Oct. 12-14
2	Geo. Hitzhusen	Cartersville	Cerro Gordo	" 11	" 19-21
3	C. Borglum	Ionia	Chickasaw	" 12	" 22-24
4	J. N. Horlacher	Storm Lake	Buena Vista	" 9 & 13	
5	Craig Nelson	Goldfield	Wright	" 7	Oct. 15-17
6	J. A. Heinz	Peosta	Dubuque	" 14	" 26-29
7	County Farm	Denison	Crawford	" 15	
8	Guy Walker	Ames	Story	" 8	Oct. 27-31
9	Fremont Isaacs	Iowa City	Johnson	" 12	" 19-24
10	C. S. Wilson	Henderson	Mills	" 7	" 7- 9
11	Guy Blakey	Russell	Wayne	" 8	" 5- 7
12	H. H. McAllister	Mt. Union	Henry	" 11	" 15-17

ARRANGEMENT OF PLOTS

Each regular entry was planted in 10 plots and each experimental entry in five plots, except composite samples which were planted in 10 plots. A plot consisted of two rows 12 hills long. The testing field was divided into five blocks extending east and west and again into five blocks extending north and south. Entries were then distributed over the field at random, except that in each block a regular entry occurred twice, and an experimental entry once. While distribution was primarily at random, the division into blocks insured the widest possible distribution for all entries. This arrangement also permitted direct comparison of the yields of entries in the two divisions.

PLANTING AND HARVESTING

Planting of the yield test fields commenced May 8 and was completed May 15. Four kernels to the hill were planted in districts 2 and 3 of the Northern Section and three kernels in all other fields. The seed was planted by hand to insure a uniform rate. The stand was not thinned.

The fields were harvested between Oct. 5 and Oct. 31. The dates of planting and of harvesting each field are given in table 2.

COMPUTATION OF YIELDS

The yield of each district entry in the regular division was computed from the product of ten 24-hill plots and in the experimental division from the product of five 24-hill plots. The yield of a section entry in the Northern and Southern sections was computed from the product of 30 (regular division) or 15 (experimental division) 24-hill plots distributed over the three fields of each section, while the yield of a section entry in the North Central and South Central sections was based on 20 and 10 plots, respectively.

Yields represent ear corn reduced to a basis of 15 percent moisture in the grain. No correction of the total yield was made for percentage of damaged kernels. Duplicate moisture samples of each district entry were obtained by removing about two rows of kernels from each of 60 ears taken at random from three replications. Moisture determinations were made on the Tag-Heppenstall Moisture Meter, and the average of the two samples was used in calculating the yield. Percentage of damaged kernels was obtained by carefully examining every kernel from a sample identical to those used for moisture determinations and classifying them as damaged or not damaged. The percentage of dropped ears was obtained by counting the number of ears found on the ground and dividing this number by the total number of plants at harvest.

PUBLICATION OF NAMES

The names of those growers whose entries yielded above the average of their class in 1936 are included in this report. The number and all information on each entry not ranking above the average, are made known to the individual making that entry so that he may be able to make comparisons with other entries.

THE SEASON OF 1936

Ideal weather conditions for germination resulted in excellent stands in all of the 12 fields, even though much of the seed was relatively weak because of the early October freeze in 1935. Corn made excellent progress in all parts of the state

until the drouth and heat began early in July. The western and southern fields suffered most from the unfavorable climatic conditions. The fields at Storm Lake and Denison were complete failures and were abandoned. The field of District 1 in Clay County suffered from the heat and drouth, but a severe hail storm in the last part of August was probably as large a factor in reducing the yield as was the unfavorable weather. District 10 in Mills County, District 11 in Wayne County and District 8 in Story County suffered greatly from the heat and drouth. The remainder of the fields had yields approximately half of normal, with the best yields coming from the north and northeastern parts of the state. District 3 had the highest and District 11 the lowest average yield. Some grasshopper damage was found in the fields in districts 9 and 11.

The fields in the Northern Section were very uniform, and those in the Southern Section were likewise level and sufficiently uniform so that no striking differences in yield were manifest in different parts of the fields. The data from these two sections are more accurate and reliable than from the North Central and South Central sections where considerable variations in yield were found in different parts of each of the four fields.

The shortage of rainfall caused corn to ripen early, and a low moisture percentage was found at the time of harvest in most of the fields. The quality of the grain was high in all the fields, with the greatest percentage of damaged seed occurring in District 1. In this field the immature ears were so bruised

TABLE 3. HIGHEST AND LOWEST YIELDING ENTRY IN BUSHELS TO THE ACRE IN THE THREE CLASSES FOR THE TEN DISTRICTS OF THE 1936 TEST

Dist.	Open-Pollinated (O.P.)			Regular Hybrid (R.H.)			Experimental Hybrid (E.H.)		
	Highest	Lowest	Diff.	Highest	Lowest	Diff.	Highest	Lowest	Diff.
1	30.98	25.84	5.14	35.88	21.33	14.55	36.90	24.98	11.92
2	49.96	39.38	10.58	62.19	39.02	23.17	65.08	41.20	23.88
3	55.88	36.70	19.18	69.31	45.78	23.53	73.53	39.23	34.30
5	39.28	24.38	14.90	51.96	34.62	17.34	52.76	29.06	23.70
6	41.91	34.99	6.92	56.97	28.27	28.70	51.46	37.80	13.66
8	35.14	26.75	8.39	43.13	25.56	17.57	45.69	29.37	16.32
9	22.49	15.35	7.14	37.62	15.44	22.18	40.92	16.37	24.55
10	16.63	13.44	3.19	30.70	15.39	15.31	27.35	19.36	7.99
11	10.70	8.40	2.30	19.14	10.35	8.79	18.91	11.13	7.78
12	36.35	19.11	17.24	53.76	30.88	22.88	55.70	36.40	19.30

by the severe hail storm in August that ear rots gained an early foothold with a resulting increase in diseased seed.

RESULTS OF 1936

The unfavorable weather conditions of the 1936 growing season caused a marked reduction in yield in all of the fields. In this adverse season the most outstanding feature of the results is the fact that in general the hybrid strains withstood the drouth and heat relatively better than the open-pollinated varieties. The results of previous tests have pointed to a similar conclusion, but never before has this ability been so strikingly shown. For example, the average yield of the open-pollinated varieties entered in all three fields of the Southern Section was 18.94 bushels to the acre, while the average yield of the regular hybrids in the same section was 26.72 bushels to the acre or 41.1 percent more than the open-pollinated corn. Iowa Hybrid 13, which made the highest yield record in this section, yielded 33.91 bushels, or 79.0 percent more corn than the average of the open-pollinated varieties. Similar, though less spectacular, differences were found in the other three sections.

In District 1 the average hybrid yield was only 6.6 percent more than the average open-pollinated although weather conditions were more unfavorable in this field than in the more eastern fields of the same section where the hybrids averaged 22.2 percent more corn than the open-pollinated varieties. A possible explanation of the failure of the hybrids to yield better in District 1 is that when the hail storm stripped the leaves from the stalks in the latter part of August the elaboration of food materials was abruptly stopped, and further growth and development were impaired. If hybrids tend to outyield the open-pollinated strains because they make more efficient use of the last part of the growing season, we would expect little difference in yield between the two classes if the growing season was drastically shortened. By the same argument it follows that the earlier maturing strains would be less affected by the hail damage and as a result should have a greater yield because they were further advanced at the time of the hail.

An inspection of the data in District 1 shows that those open-pollinated strains and hybrids below the average in percentage of moisture (i.e. the earlier strains) yielded 2.34 bushels per acre more than the later strains. The unusual climatic condition in District 1 probably prevented some entries from making as good a record in this district as they would have made under more normal conditions. Pioneer Hi-Bred 322, for example, was first in yield in District 3 and second highest in District 2 but fell down badly in District 1.

The highest and lowest yielding entries in each of the three classes for each district are listed in table 3. The greatest difference in yield between any two entries was found in District 3 where an experimental entry yielded 73.53 bushels per acre and a regular open-pollinated variety only 36.70 bushels, or less than half. In the 10 fields the greatest range in yield between entries in the same class occurred six times in the experimental hybrid and four times in the regular hybrid class. It might be expected that the greatest difference would be found in the experimental hybrid class since many of the hybrids are new, untried combinations. The fact that the greatest range in yield occurs in the regular hybrid class in 4 of the 10 fields suggests that many of the entries in this class have not been adequately tested before being put into commercial production. Even more striking is the fact that in four of the fields the lowest yielding entry in all classes was a regular hybrid. If a grower purchased seed of these low yielding hybrids just because they were called hybrids he would receive a lower yield than if he had planted his farm with seed of any of the open-pollinated strains which were entered in the test. We again say, **there is no magic in the word "hybrid."** The purchaser of hybrid corn seed should demand the pedigree and name or number of the seed he buys and should, furthermore, purchase only those hybrids which have shown their superiority in impartial tests.

Some of the hybrids entered in the Northern Section, especially District 1, had weak ear shanks, and a considerable number of the ears fell to the ground before harvest. In the wet fall of 1936 the seeds on many of the dropped ears ab-

(This discussion is completed on page 226.)

TABLE 4. DATA FOR DISTRICT ENTRIES YIELDING ABOVE THE AVERAGE OF THE CLASS TOGETHER WITH THE AVERAGE OF THE CLASS GIVEN FOR COMPARISON

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER ONE—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	30.98	109.0	81.4	13.9	3.4	2.0	6.0	4.0	Frank Parcaut, Sutherland ....Golden King
2	30.47	107.2	81.8	14.4	3.4	2.0	6.3	6.5	Frank Parcaut, Sutherland....Early Golden King
3	30.42	107.0	86.4	15.3	3.5	2.0	6.4	5.5	Albert M. Schmitz, Remsen....Golden Krug
4	29.89	105.1	81.1	13.2	3.3	2.1	6.0	2.4	Wm. McArthur, Mason City....Golden King
5	29.15	102.5	75.8	15.6	3.2	2.0	8.6	2.0	Fred N. Rupp, Cherokee....Rupp Early Yellow
	28.43		81.3	15.3	3.2	2.1	7.9	4.4	Average of the 10 entries
	28.83		62.5	14.3	3.7	2.1	3.6	2.8	Smith-Hughes Class, Inwood....Composite
HYBRID CLASS									
1	35.88	120.2	97.2	14.9	2.9	2.1	8.1	2.0	Sioux City Seed Co., Sioux City....National Hybrid 110 (Edge)
2	35.36	118.5	92.8	13.9	2.6	2.0	5.7	1.6	Sioux City Seed Co., Sioux City....Minnesota Iowealth (Edge)
3	35.15	117.8	95.0	15.2	3.1	2.0	7.0	1.6	Sioux City Seed Co., Sioux City....National Hybrid 110 (Hill)
4	34.80	116.6	87.8	14.2	2.5	2.1	3.0	3.4	Sioux City Seed Co., Sioux City....Minnesota Iowealth (Hill)
5	34.00	113.9	92.4	15.1	2.6	2.1	10.2	1.4	H. H. Turner, Grand Junction E4
6	33.40	111.9	85.7	15.4	2.6	2.0	6.6	2.8	Sioux City Seed Co., Sioux City....Northern Iowealth A
7	32.30	108.2	90.0	16.2	2.1	2.1	8.8	1.6	Sioux City Seed Co., Sioux City....Northern Iowealth AF
8	31.85	106.7	80.7	14.3	2.0	2.1	26.5	4.6	Sioux City Seed Co., Sioux City....Northern Iowealth AO
9	31.83	106.7	77.5	14.2	2.2	2.3	19.4	3.6	Paul N. Smith Seed Co., Onslow....Iowa Hybrid 931
10	31.74	106.4	79.2	14.8	2.1	2.1	24.2	4.8	U.S.D.A. & Farm Crops, Ames....Iowa Hybrid 931
11	31.60	105.9	75.8	14.7	2.1	2.0	19.2	3.9	Frank Parcaut, Sutherland....Iowa Hybrid 931
12	31.31	104.9	83.3	14.7	1.8	2.2	18.0	4.0	Frank Parcaut, Sutherland....Iowa Hybrid 942
13	31.25	104.7	70.7	14.7	3.0	2.0	5.9	6.2	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 355A
14	30.95	103.7	80.8	14.1	2.5	2.0	3.8	2.2	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 357
15	30.16	101.1	86.5	15.8	2.0	2.1	9.3	2.5	Sioux City Seed Co., Sioux City..Northern Iowealth AF (N.I.)
16	30.15	101.0	79.4	14.2	1.6	2.4	11.4	4.5	Sioux City Seed Co., Sioux City....Nebraska Iowealth 18 (I)
16	30.15	101.0	83.6	14.2	1.3	2.0	2.0	1.9	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 358
18	29.93	100.3	90.4	15.8	2.8	2.2	5.4	6.1	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 323
19	29.88	100.1	80.8	15.8	2.9	2.0	5.8	4.5	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 315
	29.84		80.9	15.2	2.2	2.2	9.3	3.6	Average of the 40 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER ONE—EXPERIMENTAL DIVISION									
OPEN-POLLINATED CLASS									
	28.65	99.7	71.4	14.3	3.0	2.2	8.2	2.7	Fred Kruse, Sheldon .....Kruse Improved Prolific
HYBRID CLASS									
1	36.90	118.6	85.7	14.4	1.8	2.0	1.1	4.2	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 335
2	35.94	115.6	65.8	15.0	2.4	2.0	8.9	1.9	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3215
3	35.69	114.8	77.2	13.6	2.2	2.0	6.5	1.3	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3412
4	35.66	114.7	73.1	14.0	2.6	2.0	10.6	1.7	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3214
5	35.57	114.4	81.9	13.5	2.4	2.0	2.4	3.0	Geo. M. Allee, Newell .....Allee Hybrid 103
6	34.50	110.9	84.2	14.9	3.2	2.0	3.3	1.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4481
7	33.59	108.0	81.1	14.9	2.2	2.0	3.4	5.3	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4100
8	32.88	105.7	87.2	13.0	2.8	1.8	3.2	3.6	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4443
9	32.48	104.4	82.5	13.1	2.6	2.2	7.1	1.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4543
10	32.33	104.0	81.9	13.4	2.6	2.0	2.4	2.6	H. H. Turner, Grand Junction E6
11	32.21	103.6	83.1	14.9	3.6	2.0	0.7	1.7	Northrup, King & Co., Minneapolis, Minn.....Kingscroft Reid 13 I
12	32.18	103.5	80.8	15.2	2.6	2.2	7.2	4.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4104
13	31.95	102.7	91.7	13.7	1.6	1.8	3.6	3.3	Geo. M. Allee, Newell .....Allee Hybrid 106
14	31.91	102.6	80.8	13.8	2.6	2.0	5.2	7.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4432
14	31.91	102.6	71.9	13.3	3.0	2.0	6.9	2.6	Farmers Seed & Nursery Co., Sheldon....Minnesota Hi-Bred 301—by Fred Kruse
16	31.89	102.5	90.3	15.1	2.2	2.0	1.8	2.2	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4496
17	31.30	100.6	87.8	15.0	2.0	2.0	7.6	3.7	H. H. Turner, Grand Junction N15
	31.10		80.4	14.6	2.4	2.0	6.0	3.9	Average of the 31 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER TWO—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	49.96	111.1	88.2	22.3	3.4	2.3	1.5	1.1	Albert M. Schmitz, Remsen ....Golden Krug
2	49.02	109.1	79.2	23.0	3.5	2.7	1.1	1.7	Fred N. Rupp, Cherokee ....Rupp Early Yellow
3	47.31	105.3	89.5	22.4	3.3	2.6	1.0	1.3	Frank Parcaut, Sutherland....Large Golden King
4	47.20	105.0	80.9	22.8	3.3	2.5	1.9	0.3	Frank Parcaut, Sutherland ....Parcaut Yellow Dent
5	45.65	101.6	86.9	22.8	3.3	3.2	1.0	0.6	Ronald M. Wilson, Sac City ....Early Krug
6	45.11	100.4	82.9	21.1	3.5	2.7	1.8	1.4	Arthur L. Look, LuVerne ....Kossuth Reliance
	44.95		85.4	21.3	3.3	2.5	1.2	1.4	Average of the 11 entries
	40.76		77.8	23.3	2.8	2.9	0.9	1.5	Smith-Hughes Class, Kanawha ....Composite
HYBRID CLASS									
1	62.19	115.9	89.8	20.7	3.6	2.6	0.9	0.5	Sioux City Seed Co., Sioux City....National Hybrid 110 (Edge)
2	61.99	115.5	79.2	22.0	2.0	2.7	0.1	0.8	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 322
3	60.31	112.4	80.7	22.8	2.1	3.1	1.5	0.9	Sioux City Seed Co., Sioux City....Nebraska Iowealth 18 (I)
4	59.25	110.4	88.5	20.1	3.2	2.2	1.3	0.5	Sioux City Seed Co., Sioux City....National Hybrid 110 (Hill)
5	59.24	110.4	83.4	25.0	2.9	3.1	1.0	0.3	Sioux City Seed Co., Sioux City....National Hybrid 117
6	58.58	109.1	88.3	19.0	2.3	2.2	2.4	2.3	Sioux City Seed Co., Sioux City....Minnesota Iowealth (Edge)
7	57.95	108.0	84.5	22.5	1.9	2.7	7.2	2.9	U.S.D.A. & Farm Crops, Ames....Iowa Hybrid 942
8	57.31	106.8	82.4	22.4	2.7	3.0	1.3	0.6	Sioux City Seed Co., Sioux City....Iowealth 15
9	57.19	106.6	75.5	25.1	2.1	2.8	2.9	0.5	Sioux City Seed Co., Sioux City....N. C. Iowealth BC_2
10	57.16	106.5	87.9	22.4	2.0	2.9	6.2	1.7	Paul N. Smith Seed Co., Onslow....Iowa Hybrid 931
11	57.06	106.3	86.6	22.4	2.0	2.8	5.3	0.7	U.S.D.A. & Farm Crops, Ames....Iowa Hybrid 931
12	56.97	106.1	84.5	21.9	3.2	2.7	2.5	0.8	Sioux City Seed Co., Sioux City....Northern Iowealth AF
13	56.48	105.2	89.9	19.4	2.4	2.2	1.3	1.8	Sioux City Seed Co., Sioux City....Minnesota Iowealth (Hill)
14	56.40	105.1	90.6	22.4	1.9	3.0	6.3	3.0	Frank Parcaut, Sutherland ....Iowa Hybrid 942
15	56.16	104.6	81.0	24.8	1.4	3.1	1.3	1.4	Sioux City Seed Co., Sioux City....Northern Iowealth 19
16	55.99	104.3	89.8	19.6	3.0	2.8	1.5	0.5	H. H. Turner, Grand Junction....E4
17	55.57	103.5	87.7	22.0	2.8	2.3	2.7	0.5	Sioux City Seed Co., Sioux City..Northern Iowealth AF (N.I.)
18	54.90	102.3	89.6	22.2	2.2	2.9	4.2	1.3	Sioux City Seed Co., Sioux City....Northern Iowealth AO
19	54.79	102.1	84.5	22.8	2.4	3.0	1.2	3.5	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 315
20	54.22	101.0	84.3	24.4	2.6	3.0	2.1	1.5	Sioux City Seed Co., Sioux City....Iowealth C
21	54.09	100.8	82.5	22.2	2.6	2.7	2.7	0.4	Sioux City Seed Co., Sioux City....Northern Iowealth AD
	53.67		83.3	22.0	2.3	2.7	2.0	1.6	Average of the 38 entries

DISTRICT NUMBER TWO—EXPERIMENTAL DIVISION

HYBRID CLASS

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
1	65.08	121.1	86.0	19.9	2.4	2.4	2.2	1.2	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 3412
2	62.17	115.7	84.8	19.5	3.2	2.8	1.5	1.1	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 3215
3	61.10	113.7	79.0	21.2	2.8	2.8	1.8	1.6	H. H. Turner, Grand Junction E5
4	61.04	113.6	90.0	21.4	3.0	2.6	2.3	1.9	H. H. Turner, Grand Junction N15
5	60.36	112.3	91.6	22.0	1.8	2.3	0.1	1.2	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 335
6	60.05	111.7	88.8	18.2	3.4	2.0	0.2	1.2	Geo. M. Allee, Newell.....Allee Hybrid 102
7	60.03	111.7	85.4	17.7	2.8	2.4	3.9	1.3	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 3214
8	59.61	110.9	86.3	24.8	3.0	2.8	2.2	0.8	H. H. Turner, Grand Junction N14
9	58.83	109.5	90.4	23.9	3.8	2.8	2.8	1.4	H. H. Turner, Grand Junction .....Turner N13
10	56.15	104.5	83.9	22.4	2.6	2.9	2.5	2.1	J. R. McNeilly, Center Junction .....Hybrid 1944
11	55.33	103.0	84.8	22.3	1.8	2.8	0.2	2.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4100
12	54.63	101.7	92.1	19.9	2.6	2.0	1.1	0.9	Geo. M. Allee, Newell .....Allee Hybrid 107
	53.74		86.4	20.8	2.5	2.4	1.4	1.7	Average of the 26 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER THREE—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	55.88	117.6	74.2	19.8	3.6	2.7	1.5	1.7	Frank Parcaut, Sutherland .....Parcaut Yellow Dent
2	54.20	114.1	83.1	22.8	3.5	3.1	2.5	1.4	Ronald M. Wilson, Sac City .....Early Krug
3	53.90	113.5	82.5	21.0	3.4	2.5	1.1	0.6	Albert M. Schmitz, Remsen .....Golden Krug
4	50.76	106.9	79.6	22.1	3.6	2.9	0.7	0.9	Fred N. Rupp, Cherokee.....Rupp Early Yellow
5	47.74	100.5	85.4	21.3	3.1	2.6	2.6	1.6	Frank Parcaut, Sutherland .....Four Way Cross
	47.50		82.2	20.6	3.3	2.6	1.6	1.2	Average of the 11 entries
HYBRID CLASS									
1	69.31	114.5	74.9	23.2	1.8	2.7	1.4	1.1	Pioneer Hi-Bred Corn Co., Des Moines.....Hi-Bred 322
2	68.39	113.0	91.9	19.8	2.7	2.5	2.2	0.2	Sioux City Seed Co., Sioux City....National Hybrid 110 (Hill)
3	67.77	112.0	80.3	22.2	1.7	3.0	4.0	1.4	Sioux City Seed Co., Sioux City.....Nebraska Iowealth 18 (I)
4	67.37	111.3	81.3	20.4	1.8	3.1	2.3	0.1	Sioux City Seed Co., Sioux City.....Iowealth 15
5	67.30	111.2	86.7	20.0	3.1	2.5	2.2	0.7	Sioux City Seed Co., Sioux City..National Hybrid 110 (Edge)
6	66.65	110.1	83.1	22.0	2.3	2.4	4.1	0.6	Sioux City Seed Co., Sioux City.....Northern Iowealth AD
7	66.61	110.1	92.4	22.1	3.2	3.0	1.8	0.9	Sioux City Seed Co., Sioux City.....Iowealth AF_2
8	66.32	109.6	82.0	23.5	2.0	2.7	13.6	4.8	Frank Parcaut, Sutherland .....Iowa Hybrid 942
8	66.32	109.6	84.4	20.8	3.0	2.4	4.0	0.7	Sioux City Seed Co., Sioux City.....Northern Iowealth AF
10	66.18	109.4	76.4	20.2	2.0	2.7	0.7	1.4	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 325
11	65.87	108.9	76.9	23.1	2.2	2.4	0.3	0.5	Sioux City Seed Co., Sioux City.....National Hybrid 121
12	65.12	107.6	81.1	21.0	2.4	2.8	8.7	2.1	Paul N. Smith Seed Co., Onslow.....Iowa Hybrid 931
13	65.04	107.5	80.9	22.5	2.5	3.1	5.8	0.6	Sioux City Seed Co., Sioux City.....National Hybrid 117
14	64.73	107.0	74.2	25.0	2.3	2.8	6.0	0.6	Sioux City Seed Co., Sioux City.....N. C. Iowealth BC_2
15	63.95	105.7	85.6	22.6	2.6	2.5	2.7	0.9	Sioux City Seed Co., Sioux City..Northern Iowealth AF (N.I.)
15	63.95	105.7	79.8	24.0	2.1	2.7	11.6	4.2	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 942
17	62.53	103.3	86.7	21.0	3.5	2.9	1.9	0.5	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 323
18	62.19	102.8	84.3	19.7	2.5	2.7	5.6	1.2	Sioux City Seed Co., Sioux City.....Northern Iowealth AO
19	61.67	101.9	71.6	20.3	2.5	2.9	6.8	0.8	Sioux City Seed Co., Sioux City.....National Hybrid 118
20	61.61	101.8	82.6	23.0	1.1	3.0	1.8	1.1	Sioux City Seed Co., Sioux City.....Northern Iowealth 19
21	60.64	100.2	88.8	20.4	1.9	2.7	6.9	1.3	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 931
	60.51		81.8	21.2	2.3	2.7	3.5	1.3	Average of the 38 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER THREE—EXPERIMENTAL DIVISION									
HYBRID CLASS									
1	73.53	128.5	90.2	21.6	4.4	2.0	3.2	0.8	H. H. Turner, Grand Junction....Turner N13
2	70.10	122.5	66.0	19.1	2.6	2.8	4.1	2.3	U.S.D.A. & Farm Crops, Ames....Iowa Hybrid 3215
3	68.87	120.4	83.3	24.6	2.6	2.6	3.3	1.4	H. H. Turner, Grand Junction....N14
4	68.48	119.7	90.8	22.8	1.6	2.4	0.3	1.5	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 335
5	66.47	116.2	86.0	21.5	2.4	2.2	2.9	2.3	H. H. Turner, Grand Junction....N15
6	65.68	114.8	78.1	21.0	3.8	3.6	1.3	1.6	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4104
7	64.21	112.2	79.8	20.9	2.0	2.2	4.4	1.4	U.S.D.A. & Farm Crops, Ames....Iowa Hybrid 3412
8	63.85	111.6	81.9	21.8	3.0	2.6	4.8	1.3	H. H. Turner, Grand Junction....E5
9	63.72	111.4	79.4	19.6	1.8	2.6	6.0	1.1	Paul N. Smith Seed Co., Onslow....King-O-Corn 112
10	62.96	110.1	87.7	20.4	2.0	2.6	6.4	0.7	J. R. McNeilly, Center Junction....Hybrid 135
11	62.67	109.5	81.7	21.6	2.3	2.8	7.7	2.2	J. R. McNeilly, Center Junction....Hybrid 1944
12	61.76	108.0	93.3	19.7	2.8	2.4	1.3	1.4	Paul N. Smith Seed Co., Onslow....King-O-Corn Minnesota
13	60.97	106.6	81.3	19.0	3.2	2.6	1.0	1.5	Geo. M. Allee, Newell....Allee Hybrid 101
14	60.47	105.7	79.1	21.8	1.7	2.7	5.8	0.5	J. R. McNeilly, Center Junction....Hybrid 1951
15	59.99	104.9	79.8	20.9	2.2	2.6	0.8	2.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4100
16	59.15	103.4	81.0	19.6	1.0	2.6	1.5	3.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4448
17	58.21	101.7	82.9	21.4	3.4	2.4	3.3	0.4	Northrup, King & Co., Minneapolis....Kingscrost Reid 13 FF
	57.21		81.7	20.1	2.3	2.4	2.5	1.4	Average of the 34 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped	Damaged	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	ears pct.	seed pct.	
					DISTRICT NUMBER FIVE—REGULAR DIVISION				
					OPEN-POLLINATED CLASS				
1	39.28	115.2	84.2	18.5	4.4	2.8	1.8	1.4	Ronald M. Wilson, Sac City.....Early Krug
2	38.92	114.2	72.6	20.5	3.8	2.9	2.7	0.6	Ronald M. Wilson, Sac City .....Morcorn
3	37.50	110.0	85.1	17.6	4.1	2.4	1.1	1.5	Albert M. Schmitz, Remsen .....Golden Krug
4	37.32	109.5	84.2	17.1	4.0	2.3	0.5	0.5	Frank Parcaut, Sutherland.....Large Golden King
5	35.32	103.6	82.1	18.8	4.1	2.4	0.5	0.4	Albert M. Schmitz, Remsen .....Golden Harvest
6	34.89	102.3	87.1	19.9	3.7	2.9	0.8	1.9	F. H. Monson, Gowrie .....Yellow Dent
7	34.39	100.9	77.1	18.7	4.4	2.4	1.6	0.2	Fred N. Rupp, Cherokee .....Triple Dent
	34.09		82.3	18.4	4.0	2.6	1.4	1.0	Average of the 12 entries
	27.58		71.8	17.7	4.0	2.7	1.0	1.1	Smith-Hughes Class, Humboldt .....Composite
					HYBRID CLASS				
1	51.96	117.6	81.8	17.1	2.5	2.5	5.4	0.3	Wm. Jugenheimer & Son, Eldridge.....Iowa Hybrid 939
2	51.92	117.5	83.1	20.4	2.9	3.1	1.3	2.0	Sioux City Seed Co,. Sioux City.....S. C. Iowealth CI
3	51.42	116.3	79.3	19.8	3.2	2.8	2.1	0.5	Sioux City Seed Co., Sioux City.....N. C. Iowealth BA (NI)
4	50.55	114.4	88.8	20.5	4.0	2.8	0.5	0.5	Sioux City Seed Co., Sioux City.....S. C. Iowealth 23
5	50.54	114.3	73.8	20.2	2.5	2.6	2.1	1.0	Sioux City Seed Co., Sioux City.....Iowealth BC_4
6	50.37	114.0	81.7	21.6	3.2	2.9	0.3	0.6	Sioux City Seed Co., Sioux City.....Iowealth 26
7	49.72	112.5	84.9	16.6	3.0	2.4	5.9	2.1	Frank Parcaut, Sutherland .....Iowa Hybrid 942
8	49.57	112.1	73.6	18.9	2.7	2.6	0.6	0.9	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 322
9	49.02	110.9	81.7	20.6	3.0	2.8	2.4	0.6	Sioux City Seed Co., Sioux City.....National Hybrid 117
10	48.82	110.5	70.3	19.0	3.2	2.5	2.0	0.3	Lester Pfister, El Paso, Ill. .....Pfister Hybrid 81
11	48.60	110.0	85.4	21.0	3.0	3.0	1.1	1.1	Sioux City Seed Co., Sioux City.....Iowealth 24
12	48.37	109.4	80.8	17.0	2.9	2.5	8.2	1.5	H. H. Turner, Grand Junction .....Iowa Hybrid 942
13	47.77	108.1	80.1	20.7	3.1	2.8	1.6	3.2	Sioux City Seed Co., Sioux City....Nebraska Iowealth 18 (NI)
13	47.77	108.1	77.9	21.1	3.1	2.7	2.5	0.9	Sioux City Seed Co., Sioux City.....N. C. Iowealth BC_2
15	47.40	107.2	91.3	20.9	3.3	3.3	1.8	2.4	Sioux City Seed Co., Sioux City.....Iowealth 22B
16	47.12	106.6	83.1	18.5	2.3	2.9	2.3	1.1	Sioux City Seed Co., Sioux City.....Northern Iowealth AD
17	46.24	104.6	81.4	19.5	3.2	2.9	1.4	1.3	Sioux City Seed Co., Sioux City.....N. C. Iowealth BA (I)
18	46.02	104.1	78.3	18.9	2.6	3.0	2.1	0.9	Sioux City Seed Co., Sioux City....Nebraska Iowealth 18 (I)
19	45.96	104.0	78.5	18.4	2.4	2.4	5.3	0.5	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 939
20	45.51	103.0	72.5	20.1	3.2	2.8	1.0	1.0	Sioux City Seed Co., Sioux City.....Iowealth 20B
21	45.45	102.8	80.6	17.0	2.4	2.1	7.4	0.6	Paul N. Smith Seed Co., Onslow.....Iowa Hybrid 939
21	45.45	102.8	83.6	18.5	2.2	2.6	0.7	1.5	Sioux City Seed Co., Sioux City .....Iowealth 19
23	45.35	102.6	81.1	17.3	3.8	2.6	0.5	1.8	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 315
24	45.25	102.4	78.5	20.3	2.4	2.9	1.6	1.7	Sioux City Seed Co., Sioux City.....N. C. Iowealth BI
25	45.10	102.0	84.6	18.6	3.5	3.0	0.8	2.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 315C
26	44.98	101.8	79.6	22.5	3.2	2.5	0.7	0.7	Sioux City Seed Co., Sioux City.....Central Iowealth 21
27	44.93	101.7	67.6	19.3	3.2	2.6	0.6	1.2	Sioux City Seed Co., Sioux City.....National Hybrid 121
28	44.83	101.4	88.6	19.9	2.6	3.1	1.4	0.8	Sioux City Seed Co., Sioux City.....Northern Iowealth AQ
29	44.60	100.9	85.0	16.7	2.9	2.6	5.6	0.7	O. W. Johnson, LeGrand .....Iowa Hybrid 942
30	44.36	100.4	75.0	20.5	3.5	2.9	0.9	0.9	Sioux City Seed Co., Sioux City.....N. C. Iowealth 20
	44.17		79.6	18.8	3.0	2.7	2.2	1.2	Average of the 56 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
					DISTRICT NUMBER FIVE—EXPERIMENTAL DIVISION				
					HYBRID CLASS				
1	52.76	131.0	83.1	19.6	2.8	2.8	4.3	1.0	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 3088
2	48.66	120.8	86.7	20.3	2.6	2.8	1.6	0.9	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 3299
3	47.86	118.8	81.7	17.5	2.5	2.7	1.4	0.6	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 326
4	47.22	117.2	90.0	18.5	2.8	3.3	0.8	0.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308D
5	45.22	112.3	83.6	18.7	2.8	2.4	0.3	2.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4007
6	45.11	112.0	92.2	18.2	3.4	2.4	0.6	1.6	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4020
7	44.99	111.7	74.7	17.1	2.6	2.6	4.5	0.2	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 3181
8	44.25	109.9	58.3	16.0	2.6	2.6	2.9	1.4	U.S.D.A. & Farm Crops, Ames .....Iowa Hybrid 3090
9	43.42	107.8	83.9	17.6	3.0	2.6	1.3	1.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4022
10	41.83	103.8	86.3	18.5	3.0	2.8	2.1	1.5	J.R. McNeilly, Center Junction .....Hybrid 1957
11	41.51	103.1	69.0	21.5	3.4	2.9	1.4	0.6	J. R. McNeilly, Center Junction .....Hybrid 1908
12	40.74	101.1	70.8	17.5	3.4	2.2	0.8	0.7	Sioux City Seed Co., Sioux City.....Iowealth 16E
13	40.62	100.8	80.8	17.7	2.6	2.4	0.7	1.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 311B
	40.28		81.1	18.1	2.7	2.5	1.5	1.2	Average of the 25 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER SIX—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	41.91	106.8	80.4	25.0	2.7	2.4	1.0	3.4	Albert M. Schmitz, Remsen ..... Golden Harvest
2	41.06	104.7	66.9	22.9	3.3	2.1	0.0	0.9	Fred N. Rupp, Cherokee ..... Triple Dent
3	40.98	104.5	64.0	23.7	4.0	2.4	0.9	0.8	Fred N. Rupp, Cherokee ..... Rupp Early Yellow
4	40.51	103.3	79.4	24.5	3.4	2.2	0.5	0.2	Albert M. Schmitz, Remsen ..... Golden Krug
5	39.52	100.7	76.7	24.0	3.0	2.0	0.7	3.1	Frank Parcaut, Sutherland ..... Large Golden King
	39.23		72.7	24.4	3.2	2.3	0.9	1.4	Average of the 10 entries
	39.29		64.2	24.2	3.1	2.4	0.2	0.7	Smith-Hughes Class, Waterloo ..... Composite
	37.95		63.5	24.4	3.0	2.8	1.1	0.4	Smith-Hughes Class, LaPorte City ..... Composite
HYBRID CLASS									
1	56.97	124.1	69.6	24.8	1.9	2.5	0.8	0.9	Sioux City Seed Co., Sioux City ..... N. C. Iowealth BA (N. I.)
2	54.78	119.3	70.4	25.3	1.2	2.4	2.4	1.3	Sioux City Seed Co., Sioux City ..... Nebraska Iowealth 18 (I)
3	52.30	113.9	78.6	28.3	1.8	2.7	0.9	0.9	Sioux City Seed Co., Sioux City ..... Iowealth 22B
4	51.88	113.0	74.9	23.3	1.9	2.4	1.5	0.5	Paul N. Smith Seed Co., Onslow ..... King-O-Corn 120
5	51.55	112.3	79.3	23.8	2.0	2.1	4.4	1.0	Frank Parcaut, Sutherland ..... Iowa Hybrid 942
6	50.64	110.3	72.5	23.0	1.5	2.4	0.0	0.4	Sioux City Seed Co., Sioux City ..... Iowealth 15
7	50.58	110.2	74.6	25.9	1.6	2.4	0.9	1.0	Sioux City Seed Co., Sioux City ..... National Hybrid 117
8	50.02	109.0	63.8	23.5	1.6	2.2	3.9	0.2	U. S. D. A. & Farm Crops, Ames ..... Iowa Hybrid 939
9	49.96	108.8	73.1	27.6	1.7	2.6	1.5	0.3	Sioux City Seed Co., Sioux City ..... Iowealth 26
10	49.55	107.9	65.4	24.3	2.0	2.4	1.1	0.1	Sioux City Seed Co., Sioux City ..... Iowealth 20B
11	49.52	107.9	71.9	26.6	1.6	2.3	1.0	1.1	Paul N. Smith Seed Co., Onslow ..... King-O-Corn 115
12	49.20	107.2	71.1	25.7	1.8	2.4	2.7	0.8	Sioux City Seed Co., Sioux City ..... S. C. Iowealth CI
13	49.16	107.1	66.5	24.7	1.6	2.3	1.0	0.4	Lester Pfister, El Paso, Ill. ..... Pfister Hybrid 81
14	49.01	106.8	63.6	28.1	1.7	2.2	3.1	1.0	Sioux City Seed Co., Sioux City ..... Iowealth BC_4
15	48.69	106.1	62.8	23.2	2.0	2.3	3.3	0.2	Wm. Jugenheimer & Son, Eldridge ..... Iowa Hybrid 942
16	48.47	105.6	69.3	27.1	2.1	2.5	0.2	3.4	Pioneer Hi-Bred Corn Co., Des Moines ..... Pioneer Hi-Bred 325
17	48.38	105.4	63.5	28.1	1.5	2.2	1.1	1.7	Sioux City Seed Co., Sioux City ..... N. C. Iowealth BI
18	48.06	104.7	69.0	23.2	1.5	2.0	0.8	0.5	Pioneer Hi-Bred Corn Co., Des Moines ..... Pioneer Hi-Bred 322
19	48.02	104.6	74.2	21.3	2.3	2.5	0.9	1.7	Pioneer Hi-Bred Corn Co., Des Moines ..... Pioneer Hi-Bred 315
20	47.98	104.5	64.6	24.0	2.2	2.6	4.9	0.3	Sioux City Seed Co., Sioux City ..... National Hybrid 118
21	47.90	104.3	65.7	24.4	1.4	2.3	1.7	0.5	Sioux City Seed Co., Sioux City ..... Northern Iowealth AD
22	47.85	104.2	75.3	25.3	2.0	2.4	1.7	0.3	Paul N. Smith Seed Co., Onslow ..... King-O-Corn 118
23	47.84	104.2	55.1	24.0	1.9	2.0	2.8	1.5	H. H. Turner, Grand Junction ..... Iowa Hybrid 939
24	47.22	102.9	67.1	24.9	1.6	2.4	0.4	2.0	Sioux City Seed Co., Sioux City ..... N. C. Iowealth BA (I)
25	47.08	102.5	68.6	25.0	1.4	2.0	4.7	1.2	Paul N. Smith Seed Co., Onslow ..... Iowa Hybrid 939
26	46.65	101.6	64.2	25.7	1.4	2.1	0.9	0.6	Sioux City Seed Co., Sioux City ..... Iowealth 19
27	46.49	101.3	67.9	21.8	1.7	2.3	0.6	0.2	Sioux City Seed Co., Sioux City ..... National Hybrid 114
28	46.17	100.6	61.5	24.4	2.1	2.3	2.3	1.3	Sioux City Seed Co., Sioux City ..... N. C. Iowealth 22
29	46.05	100.3	62.1	28.1	1.7	2.5	2.0	0.2	Sioux City Seed Co., Sioux City ..... N. C. Iowealth BC_2
30	45.90	100.0	73.5	28.8	1.7	2.4	2.5	1.4	Paul N. Smith Seed Co., Onslow ..... King-O-Corn Drouth Res't
	45.91		69.0	25.2	1.8	2.3	1.7	1.2	Average of the 60 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped	Damaged	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	ears pct.	seed pct.	
				DISTRICT NUMBER SIX—EXPERIMENTAL DIVISION					
1	51.46	114.0	76.9	23.0	1.8	1.8	0.0	1.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4017
2	51.19	113.4	72.8	23.0	1.6	2.8	0.8	0.7	U. S. D. A. & Farm Crops, Ames .....Iowa Hybrid 3422
3	50.92	112.8	76.4	24.2	2.4	2.6	0.4	2.3	Geo. M. Allee, Newell .....Allee Hybrid 89
4	50.33	111.5	73.6	24.8	1.2	2.4	0.8	1.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4025
5	49.96	110.7	66.7	24.5	2.0	2.6	0.0	1.0	Sioux City Seed Co., Sioux City .....Iowealth 17 E
6	49.31	109.2	76.4	26.0	2.2	2.4	1.8	0.8	U. S. D. A. & Farm Crops, Ames .....Iowa Hybrid 3299
7	49.19	109.0	60.0	23.2	1.8	2.4	1.9	1.1	U. S. D. A. & Farm Crops, Ames .....Iowa Hybrid 3181
8	49.17	108.9	64.2	24.5	2.0	2.6	3.9	0.4	U. S. D. A. & Farm Crops, Ames .....Iowa Hybrid 3088
9	47.41	105.0	66.1	22.9	1.8	2.0	1.3	0.4	Sioux City Seed Co., Sioux City .....Iowealth 16E
10	47.10	104.3	51.1	20.3	1.8	2.6	0.5	0.5	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3090
11	45.79	101.4	77.6	25.4	1.9	2.4	0.0	0.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-B'd 308D
12	45.61	101.0	65.3	25.7	1.8	2.4	0.9	2.2	Paul N. Smith Seed Co., Onslow .....King-O-Corn 939A
	45.14		67.9	24.2	1.9	2.3	0.9	1.2	Average of the 28 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER EIGHT—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	35.14	117.2	77.9	14.2	3.1	2.2	2.7	1.6	Marion Coppock, Ankeny ..... Coppock Utility
2	33.25	110.9	86.7	15.8	4.1	2.9	4.3	1.7	Ed Bohstedt Grinnell ..... Reid Yel. Dent
3	31.96	106.6	81.5	16.4	3.6	2.6	3.7	0.7	Ronald M. Wilson, Sac City ..... Morcorn
4	31.59	105.3	87.1	13.7	3.1	2.4	3.7	1.3	A. S. Beary, Albion ..... Beary Yel. Dent
	29.99		80.2	15.5	3.5	2.6	3.6	1.1	Average of the 10 entries
	29.98		64.7	15.3	3.6	2.3	6.2	0.6	Smith-Hughes Class, Collins ..... Composite
HYBRID CLASS									
1	43.13	116.9	93.8	16.3	3.6	2.4	3.4	0.8	U. S. D. A. & Farm Crops, Ames ..... Iowa Hybrid 13
2	43.06	116.7	90.1	16.5	1.9	2.7	0.6	1.6	Sioux City Seed Co., Sioux City ..... Iowealth 22B
3	42.21	114.4	86.7	16.4	2.8	2.6	1.1	0.7	Sioux City Seed Co., Sioux City ..... S. C. Iowealth 25
4	42.10	114.1	84.9	15.6	2.2	2.4	1.8	0.9	Sioux City Seed Co., Sioux City ..... N. C. Iowealth BI
5	41.21	111.6	85.0	14.6	3.1	2.4	1.5	2.0	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 307
6	41.00	111.1	78.5	16.4	1.6	2.2	2.1	0.2	Sioux City Seed Co., Sioux City ..... Iowealth BC_4
7	40.89	110.8	79.9	14.6	1.5	2.3	2.3	1.6	Sioux City Seed Co., Sioux City....Nebraska Iowealth 18 (I)
8	40.87	110.7	81.3	14.3	2.5	2.3	0.5	2.0	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 325
9	40.01	108.4	78.9	15.3	2.1	2.2	3.3	0.2	Sioux City Seed Co., Sioux City..... N. C. Iowealth BC_2
10	39.83	107.9	86.7	16.3	3.1	2.4	2.6	1.4	Sioux City Seed Co., Sioux City..... S. C. Iowealth CJ
11	39.82	107.9	86.9	14.9	1.8	2.4	5.1	1.1	O. W. Johnson, LeGrand..... Iowa Hybrid 942
12	39.56	107.2	84.2	14.9	2.6	2.4	2.1	1.1	Sioux City Seed Co., Sioux City..... National Hybrid 125
13	39.48	107.0	81.0	14.6	2.7	2.2	4.1	1.0	Sioux City Seed Co., Sioux City..... Iowealth 22C
13	39.48	107.0	80.3	15.5	2.0	2.5	3.5	1.4	Sioux City Seed Co., Sioux City..... S. C. Iowealth CI
15	39.40	106.7	78.9	15.0	2.3	2.6	1.1	0.6	Sioux City Seed Co., Sioux City..... Iowealth CC_3
16	39.32	106.5	82.2	16.2	2.6	2.4	1.9	1.3	Sioux City Seed Co., Sioux City..... Iowealth CC
17	39.22	106.3	83.6	13.6	3.2	2.4	0.5	1.2	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 308
18	39.12	106.0	72.4	14.6	2.6	2.4	1.3	1.1	Sioux City Seed Co., Sioux City..... Iowealth 20B
19	38.90	105.4	79.2	17.4	3.1	2.8	2.5	0.9	Sioux City Seed Co., Sioux City..... Iowealth 25B
20	38.76	105.0	82.2	16.3	2.3	2.6	1.9	1.0	Sioux City Seed Co., Sioux City..... Iowealth C
21	38.59	104.6	79.0	14.6	2.3	2.3	5.6	1.3	U.S.D.A. & Farm Crops, Ames..... Iowa Hybrid 942
22	38.36	103.9	80.3	16.2	2.7	2.3	2.8	0.6	Funk Bros. Seed Co., Bloomington, Ill..... Funk Hybrid 235
23	38.24	103.6	77.5	16.5	2.0	2.2	4.3	0.2	U.S.D.A. & Farm Crops, Ames..... Iowa Hybrid 939
24	38.23	103.6	76.0	16.8	2.9	2.4	1.1	0.7	Sioux City Seed Co., Sioux City..... S. C. Iowealth 23
25	38.20	103.5	74.9	17.4	2.2	2.5	0.6	0.6	Sioux City Seed Co., Sioux City..... Iowealth 26
26	37.92	102.7	83.2	14.5	2.2	2.5	1.2	0.7	Sioux City Seed Co., Sioux City..... Iowealth 15
27	37.66	102.0	74.7	15.8	2.9	2.5	2.6	1.6	Sioux City Seed Co., Sioux City..... Iowealth 25A
28	37.49	101.6	82.1	17.8	2.3	2.2	1.9	1.0	Sioux City Seed Co., Sioux City..... Iowealth 24A
29	37.48	101.5	85.1	15.0	2.2	2.0	5.1	1.3	H. H. Turner, Grand Junction ..... Iowa Hybrid 939
30	37.37	101.2	78.8	15.4	2.2	2.3	2.6	0.3	Sioux City Seed Co., Sioux City..... National Hybrid 117
31	37.30	101.1	89.6	17.7	3.0	2.4	1.1	2.0	Sioux City Seed Co., Sioux City..... Iowealth 24B (I)
32	37.18	100.7	79.0	16.7	3.0	2.8	2.1	1.5	Sioux City Seed Co., Sioux City..... Central Iowealth 21
33	36.98	100.2	74.4	14.4	2.5	2.2	3.0	1.3	Sioux City Seed Co., Sioux City..... National Hybrid 119
	36.61		80.3	15.7	2.5	2.4	2.2	1.2	Average of the 56 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER EIGHT—EXPERIMENTAL DIVISION									
OPEN-POLLINATED CLASS									
	28.29		84.9	15.9	3.1	2.5	3.3	1.1	W. C. & G. V. Harkrader, Adel....Harkrader Smooth Type YD
HYBRID CLASS									
1	45.69	121.6	89.2	15.9	1.6	2.0	2.5	0.8	Genetics Section, Ames.....6591 x 6287
2	45.14	120.2	92.2	13.8	1.4	2.4	1.5	1.4	Genetics Section, Ames.....6592 x 6285
3	43.23	115.1	74.4	15.6	2.2	2.8	2.6	1.5	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3110
4	42.35	112.8	85.8	15.6	3.6	2.8	2.3	0.8	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3342
5	42.14	112.2	83.6	15.1	2.2	3.0	2.3	0.9	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3362
6	41.77	111.2	83.1	15.2	2.3	2.4	1.0	2.1	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 314
7	41.57	110.7	87.8	17.2	2.7	2.5	1.1	3.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 305A
8	41.49	110.5	76.9	14.9	2.6	2.4	1.8	1.0	Funk Bros. Seed Co., Bloomington, Ill.....Funk Hybrid 212
9	40.83	108.7	89.2	16.5	3.0	2.2	2.5	2.0	Genetics Section, Ames.....6592 x 6370
10	40.37	107.5	83.6	16.5	2.6	2.4	1.7	0.1	Sioux City Seed Co., Sioux City.....Iowealth 25EF
11	40.31	107.3	82.2	16.7	2.6	2.2	0.3	1.6	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4056
12	39.90	106.2	85.8	15.4	2.8	2.6	0.3	0.6	Sioux City Seed Co., Sioux City.....Iowealth 21E
13	39.77	105.9	76.9	14.9	2.5	2.4	2.5	2.0	J. R. McNeilly, Center Junction.....Hybrid 1977
14	39.73	105.8	87.2	14.0	2.0	2.2	2.5	2.8	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3340
15	39.67	105.6	89.4	14.1	2.4	2.4	0.9	1.6	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4007
16	39.53	105.2	90.6	15.5	2.9	2.6	0.9	1.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308D
17	39.24	104.5	87.5	15.9	4.4	2.2	1.0	1.2	Genetics Section, Ames.....6593 x 6552
18	39.10	104.1	86.1	15.8	1.6	2.4	3.9	1.5	Sioux City Seed Co., Sioux City.....Iowealth 20C
19	38.91	103.6	86.4	15.5	2.0	2.4	1.0	1.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4011
20	38.78	103.2	81.7	16.0	1.4	2.4	1.4	0.9	Sioux City Seed Co., Sioux City.....Iowealth AQ_3
21	38.64	102.9	84.7	19.6	3.6	2.2	1.0	1.5	Genetics Section, Ames.....6600 x 6251
22	38.54	102.6	83.1	14.6	3.2	2.4	0.7	1.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4086
23	38.19	101.7	91.1	14.2	3.2	2.4	3.0	1.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4004
24	37.96	101.1	91.9	16.1	1.2	2.0	1.2	1.3	Genetics Section, Ames.....6591 x 6339
	37.56		84.3	15.6	2.4	2.4	1.6	1.5	Average of the 46 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
					DISTRICT NUMBER NINE—REGULAR DIVISION				
					OPEN-POLLINATED CLASS				
1	22.49	114.9	80.1	21.7	2.4	3.0	1.2	0.8	Clarence Meyer, Van Meter.....Meyer Dent
2	21.09	107.8	75.6	20.5	2.8	3.1	0.7	2.7	Fred McCulloch, Hartwick.....McCulloch High Yield
3	20.58	105.2	83.5	19.3	2.1	3.1	0.3	0.1	George Steen, West Liberty.....Steen Yel. Dent
4	20.16	103.0	79.2	20.6	2.1	3.1	1.1	1.6	Ronald Wilson, Sac City.....Morcorn
	19.57		81.1	19.6	2.4	2.9	0.7	1.8	Average of the 8 entries
	19.74		65.1	18.3	2.2	3.1	0.9	0.1	Smith-Hughes Class, Muscatine.....Composite
					HYBRID CLASS				
1	37.62	129.2	77.6	22.3	2.0	3.4	1.6	0.4	Sioux City Seed Co., Sioux City.....Iowealth 25B
2	36.61	125.7	85.0	20.0	2.2	3.2	1.6	1.1	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 308
3	35.61	122.3	93.9	21.8	1.7	3.0	2.2	1.7	Sioux City Seed Co., Sioux City.....Iowealth 24B (I)
4	35.32	121.3	82.5	20.0	1.9	2.9	0.0	2.5	Sioux City Seed Co., Sioux City.....National Hybrid 125
5	35.20	120.9	80.8	23.0	1.8	2.9	1.7	1.7	Sioux City Seed Co., Sioux City.....Iowealth 24B (NI)
6	34.68	119.1	79.3	21.6	1.8	2.9	1.6	0.3	Sioux City Seed Co., Sioux City.....Central Iowealth 21
7	34.52	118.5	69.4	20.6	1.4	3.1	0.4	0.6	Sioux City Seed Co., Sioux City.....Iowealth 20B
8	34.17	117.3	76.4	19.8	1.8	2.7	0.4	2.0	Sioux City Seed Co., Sioux City.....Iowealth 24A
8	34.17	117.3	85.0	21.7	1.9	3.1	1.5	1.1	Paul N. Smith Seed Co., Onslow.....King-O-Corn 130
10	33.41	114.7	83.8	21.2	2.0	2.8	0.5	0.6	Sioux City Seed Co., Sioux City.....Iowealth CC
11	33.28	114.3	69.2	20.3	2.2	2.9	1.4	2.0	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 13
12	32.76	112.5	70.7	22.3	1.9	3.0	2.6	1.0	Sioux City Seed Co., Sioux City.....Iowealth 25A
13	32.74	112.4	84.4	20.9	2.0	2.9	0.5	2.8	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 307
14	32.69	112.3	81.0	23.7	2.1	3.0	0.3	1.8	Sioux City Seed Co., Sioux City.....Iowealth D
15	32.54	111.7	78.5	19.8	1.3	2.6	0.4	1.7	Sioux City Seed Co., Sioux City.....Nebraska Iowealth 18 (I)
16	32.21	110.6	85.0	18.1	1.8	3.0	0.7	1.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 311A
17	31.89	109.5	79.3	20.1	1.3	2.8	0.9	1.0	Sioux City Seed Co., Sioux City.....Iowealth 20F
18	31.64	108.7	88.6	21.3	2.0	3.1	0.9	0.3	Sioux City Seed Co., Sioux City.....Iowealth 22B
19	31.07	106.7	81.5	19.3	1.8	2.4	0.0	1.8	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 325
20	30.99	106.4	82.2	20.1	1.1	2.8	1.2	0.8	Sioux City Seed Co., Sioux City.....S. C. Iowealth CI
21	30.97	106.4	83.8	22.2	1.5	2.7	2.2	0.4	Funk Bros. Seed Co., Bloomington, Ill.....Funk Hybrid 235
22	30.65	105.3	85.7	21.8	1.2	2.3	0.8	3.1	Sioux City Seed Co., Sioux City.....N. C. Iowealth BI
23	30.52	104.8	76.3	20.8	2.0	3.0	0.7	0.3	Sioux City Seed Co., Sioux City.....S. C. Iowealth 23
24	30.15	103.5	86.4	21.3	1.8	3.3	1.1	1.1	Sioux City Seed Co., Sioux City.....S. C. Iowealth 25
25	30.09	103.3	77.9	19.2	1.6	2.9	1.1	0.8	Sioux City Seed Co., Sioux City.....National Hybrid 120
26	29.85	102.5	75.1	19.2	2.0	2.3	2.2	1.9	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 939
27	29.40	101.0	79.7	20.0	1.5	2.7	0.9	1.0	Sioux City Seed Co., Sioux City.....National Hybrid 118
	29.12		79.7	20.5	1.7	2.8	1.0	1.3	Average of the 54 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER NINE—EXPERIMENTAL DIVISION									
OPEN-POLLINATED CLASS									
	16.68		86.9	18.6	2.4	2.9	0.2	1.4	W. C. & G. V. Harkrader, Adel....Harkrader Smooth Type YD
HYBRID CLASS									
1	40.92	143.0	82.2	20.4	2.4	3.2	1.7	0.0	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3342
2	38.80	135.6	76.9	19.2	1.6	2.8	0.7	0.1	Sioux City Seed Co., Sioux City.....Iowealth 21EG
3	37.71	131.8	88.1	20.0	3.0	3.0	0.0	0.3	Genetics Section, Ames.....6593 x 6552
4	36.02	125.9	86.1	22.2	2.2	3.0	1.6	0.6	Genetics Section, Ames.....6600 x 6251
5	35.24	123.2	81.3	21.7	1.4	2.8	0.0	0.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 305A
6	34.97	122.2	92.8	22.6	2.2	2.6	0.6	0.9	Genetics Section, Ames.....6592 x 6370
7	34.93	122.1	87.2	19.4	2.4	3.2	1.3	0.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4004
8	34.40	120.2	87.2	23.9	1.6	3.0	2.5	2.0	Sioux City Seed Co., Sioux City.....Iowealth 23E
9	34.36	120.1	87.5	19.6	3.3	3.2	2.1	1.4	Farm Crops Subsect., Ames.....Iowa Hybrid 13 (75% germ.)
10	33.29	116.4	76.4	20.6	1.8	3.0	0.7	0.6	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3362
11	32.81	114.7	85.0	19.3	1.6	2.8	0.3	3.0	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 2093
12	32.76	114.5	84.7	21.3	2.7	2.9	1.0	3.2	Fremont Isaacs, Iowa City.....Iowa Hybrid 13
12	32.76	114.5	89.7	19.4	1.5	3.3	0.0	1.5	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308D
14	32.23	112.7	85.8	19.4	1.4	2.8	0.0	4.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4025
15	32.02	111.9	78.1	19.1	1.9	3.0	0.5	0.8	J. R. McNeilly, Center Junction.....Hybrid 1977
16	31.57	110.3	78.6	18.8	1.8	2.8	0.5	2.4	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 314
17	31.56	110.3	78.3	19.4	1.2	2.6	0.0	1.9	Pioneer Hi-Bred Corn Co., Des Doines..Pioneer Hi-Bred 2111A
18	31.46	110.0	82.6	21.4	3.1	3.0	1.5	1.5	Farm Crops Subsect., Ames.....Iowa Hybrid 13 (60% germ.)
19	30.69	107.3	90.3	21.1	2.0	2.4	0.0	5.0	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4011
20	30.23	105.7	80.6	19.1	1.8	3.0	0.3	2.0	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4002
21	29.59	103.4	64.7	22.2	1.8	2.8	0.9	0.4	Sioux City Seed Co., Sioux City.....Iowealth 24EB
22	28.95	101.2	78.9	19.8	1.6	2.0	0.4	1.8	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4056
23	28.84	100.8	88.6	21.7	1.2	2.4	0.0	3.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4086
24	28.60	100.0	90.3	17.6	1.0	2.2	0.0	1.8	Genetics Section, Ames.....6591 x 6339
24	28.60	100.0	87.8	19.7	1.6	2.4	0.9	4.4	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3340
	28.61		84.4	20.4	1.8	2.7	0.8	1.7	Average for the 51 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER TEN—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	16.63	109.7	77.1	17.3	2.5	2.5	3.6	1.6	Clyde Black, Ames.....Black Yel. Dent
2	16.51	108.9	83.1	17.6	2.0	2.5	2.2	2.4	T. Bonar McKee, Carlisle.....Reid Yel. Dent
3	16.15	106.5	84.0	20.6	2.5	2.2	2.3	3.0	Clarence Meyer, Van Meter.....Meyer Dent
4	15.57	102.7	74.4	17.0	2.8	2.3	4.3	2.4	Chas. Sands & Sons, Ottumwa.....Krug
	15.16		77.0	17.9	2.4	2.3	2.6	2.4	Average for the 7 entries
	15.90		68.2	17.8	2.1	2.5	2.6	1.8	Smith-Hughes Class, Bedford.....Composite
	13.79		57.2	17.7	2.7	2.4	3.9	5.5	Smith-Hughes Class, Corning.....Composite
HYBRID CLASS									
1	30.70	140.9	87.6	17.2	1.8	2.7	2.9	3.1	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 13
2	28.09	128.9	75.4	17.9	1.9	2.0	4.1	0.5	Sioux City Seed Co., Sioux City....North Central Iowealth BI
3	25.92	119.0	78.8	17.0	1.8	2.2	2.1	4.4	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 307
4	25.15	115.4	71.0	18.1	2.1	2.7	2.7	2.8	Sioux City Seed Co., Sioux City.....Iowealth 25B
5	24.95	114.5	71.1	18.6	2.3	2.4	3.5	2.8	Funk Bros. Seed Co., Bloomington, Ill.....Funk Hybrid 207
6	24.87	114.1	76.9	17.3	2.1	2.2	1.4	0.7	Sioux City Seed Co., Sioux City.....Iowealth 26
7	24.72	113.4	77.2	18.2	1.8	2.1	4.1	3.1	Funk Bros. Seed Co., Bloomington, Ill.....Funk Hybrid 235
8	24.22	111.2	76.6	17.6	2.0	2.4	3.4	1.1	Sioux City Seed Co., Sioux City.....S. C. Iowealth CI
9	24.17	110.9	77.6	18.1	2.1	2.1	1.6	4.4	Sioux City Seed Co., Sioux City.....Iowealth D
10	23.77	109.1	73.3	17.6	1.7	2.6	1.2	3.6	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 308
11	22.90	105.1	76.0	22.3	2.2	2.0	3.8	1.3	Sioux City Seed Co., Sioux City.....Iowealth CC
12	22.69	104.1	74.9	19.2	1.7	2.4	3.0	3.4	Paul N. Smith Seed Co., Onslow.....King-O-Corn 130
13	22.66	104.0	75.3	19.9	1.7	2.4	2.6	2.8	Sioux City Seed Co., Sioux City.....Iowealth 24B (N.I.)
14	22.18	101.8	78.2	18.0	2.0	2.1	2.8	2.4	Sioux City Seed Co., Sioux City.....Iowealth C
15	21.82	100.1	72.5	20.6	1.5	2.1	3.6	3.4	Funk Bros. Seed Co., Bloomington, Ill.....Ill. Hybrid 546
	21.79		76.9	19.0	1.9	2.2	2.6	3.3	Average of the 36 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER TEN—EXPERIMENTAL DIVISION									
OPEN-POLLINATED CLASS									
	14.12		86.9	23.2	1.8	2.2	1.0	5.1	Cereal Crops & Dis., U.S.D.A., Washington....Thompson Prolific
HYBRID CLASS									
1	27.35	116.3	72.5	19.3	2.2	2.0	1.5	2.2	Sioux City Seed Co., Sioux City.....Iowealth 25EA
2	26.63	113.3	61.7	18.7	2.2	2.6	3.2	0.5	Sioux City Seed Co., Sioux City.....Iowealth 25E
2	26.63	113.3	83.1	17.1	2.2	2.6	4.3	1.7	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3395
4	26.51	112.8	64.4	16.9	2.4	3.0	4.3	2.9	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3154
5	26.12	111.1	73.6	20.4	1.6	3.0	1.9	2.3	Sioux City Seed Co., Sioux City.....Iowealth 27EC
6	26.08	110.9	88.6	18.0	2.0	2.6	6.3	3.6	Sioux City Seed Co., Sioux City.....Iowealth 23EA
7	25.63	109.0	85.3	22.7	1.8	2.8	0.7	1.1	Sioux City Seed Co., Sioux City.....Iowealth 30E
8	25.18	107.1	80.0	18.5	1.0	2.4	1.2	4.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308C
9	25.09	106.7	77.4	19.9	1.2	2.6	1.3	1.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 305A
10	24.80	105.5	60.6	17.7	2.2	3.0	3.7	1.9	Sioux City Seed Co., Sioux City.....Iowealth 25ED
11	24.46	104.0	79.4	18.6	2.2	2.2	2.1	1.9	Cereal Crops & Dis., U.S.D.A., Washington, D. C.....I.Y.T. 45
12	24.25	103.1	86.4	20.0	1.8	2.0	1.0	3.2	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4010
13	24.17	102.8	81.4	21.8	2.4	2.0	1.4	2.7	Sioux City Seed Co., Sioux City.....National Hybrid 126EA
14	23.74	101.0	88.6	20.5	1.4	2.6	3.4	2.1	Cereal Crops & Dis., U.S.D.A., Washington, D. C.....I.Y.T. 44
15	23.67	100.7	70.0	19.3	1.6	2.4	2.8	1.5	Sioux City Seed Co., Sioux City.....Iowealth 27E
	23.51		78.4	19.5	1.9	2.4	2.3	2.6	Average for the 29 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER ELEVEN—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	10.70	110.5	69.0	15.6	2.7	2.1	1.0	1.5	Chas. Sands & Sons, Ottumwa....Krug
2	10.09	104.2	73.9	15.6	2.5	2.3	1.7	1.4	T. Bonar McKee, Carlisle....Reid Yel. Dent
3	10.06	103.9	78.5	15.4	2.8	2.5	0.9	1.4	Clarence Meyer, Van Meter....Meyer Dent
	9.68		75.0	15.5	2.6	2.4	0.9	1.8	Average of the 5 entries
	9.32		59.2	16.5	2.7	2.1	1.4	2.2	Smith-Hughes Class, Moravia....Composite
	8.33		69.3	15.2	2.9	2.2	0.8	1.5	Smith-Hughes Class, Leon....Composite
HYBRID CLASS									
1	19.14	130.2	77.1	15.6	1.9	2.4	0.5	3.2	Sioux City Seed Co., Sioux City....Iowealth D
2	18.62	126.7	80.4	15.9	1.4	2.0	0.2	3.7	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 307
3	17.34	118.0	74.7	15.6	2.4	2.1	1.1	1.3	Sioux City Seed Co., Sioux City....North Central Iowealth BI
4	17.28	117.6	76.5	13.9	2.3	2.5	0.9	3.4	U.S.D.A. & Farm Crops, Ames....Iowa Hybrid 13
5	16.94	115.2	75.1	14.4	2.0	2.4	0.4	1.9	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 308
6	16.87	114.8	78.6	18.4	1.9	2.1	0.5	2.6	Funk Bros. Seed Co., Bloomington Ill....Funk Hybrid 235
7	16.63	113.1	77.5	16.1	2.0	2.1	0.4	1.0	Sioux City Seed Co., Sioux City....Iowealth CC
8	16.58	112.8	77.2	17.3	1.6	2.2	1.4	2.0	Sioux City Seed Co., Sioux City....Iowealth C
9	16.39	111.5	78.8	17.5	1.8	2.2	1.2	0.4	Sioux City Seed Co., Sioux City....S. C. Iowealth CJ
10	16.22	110.3	91.0	17.7	1.5	2.1	0.3	2.1	Lester Pfister, El Paso, Ill....Pfister Hybrid 100
11	16.09	109.5	69.7	14.8	2.3	2.3	0.4	1.1	Funk Bros. Seed Co., Bloomington, Ill....Funk Hybrid 207
12	16.04	109.1	65.6	15.0	1.8	2.9	0.8	1.7	Sioux City Seed Co., Sioux City....Iowealth 25A
13	15.83	107.7	79.7	16.4	1.8	2.4	0.7	1.5	Sioux City Seed Co. ,Sioux City....Iowealth 24
14	15.68	106.7	75.3	15.8	1.9	2.3	1.1	1.2	Sioux City Seed Co., Sioux City....S. C. Iowealth CI
15	15.59	106.1	70.1	15.4	1.8	2.4	0.4	2.2	Sioux City Seed Co., Sioux City....Iowealth 20F
16	15.42	104.9	73.8	14.4	2.4	2.5	0.2	1.2	Sioux City Seed Co., Sioux City....Iowealth 25B
17	15.10	102.7	75.1	16.1	1.9	2.3	1.1	2.8	Sioux City Seed Co., Sioux City....Central Iowealth 21
18	14.99	102.0	70.0	14.8	1.6	2.0	0.8	0.7	Sioux City Seed Co., Sioux City....Iowealth 24A
	14.70		75.6	16.1	2.0	2.2	0.6	1.9	Average for the 36 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER ELEVEN—EXPERIMENTAL DIVISION									
HYBRID CLASS									
1	18.91	121.8	84.6	20.5	1.3	2.8	0.3	1.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308C
2	18.56	119.5	86.9	15.1	1.4	2.2	0.0	0.7	Cereal Crops & Dis., Washington, D. C.....I.Y.T. 46
3	18.25	117.5	78.2	14.0	1.8	2.2	0.2	0.9	J. R. McNeilly, Center Junction.....Hybrid 1977
4	17.73	114.2	81.7	17.5	2.0	2.4	2.0	1.1	Sioux City Seed Co., Sioux City.....National Hybrid 125E
5	17.60	113.3	68.9	15.2	2.0	2.8	0.4	1.3	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3154
6	17.33	111.6	88.6	17.2	1.4	2.2	0.3	0.6	Cereal Crops & Dis., Washington, D. C.....I.Y.T. 45
7	17.20	110.8	80.3	13.8	2.2	2.4	1.0	2.7	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3395
8	17.06	109.9	83.3	16.0	1.4	2.6	0.7	1.0	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3357
9	16.71	107.6	75.6	16.0	2.6	2.0	0.4	1.9	Sioux City Seed Co., Sioux City.....Iowealth 27EC
10	16.31	105.0	78.2	17.4	1.1	2.5	1.1	1.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308B
11	16.30	105.0	84.3	14.8	1.8	2.4	0.5	2.5	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308D
12	15.97	102.8	76.4	17.0	2.0	2.2	0.4	3.3	Sioux City Seed Co., Sioux City.....National Hybrid 125EA
13	15.73	101.3	73.9	17.2	1.8	2.8	0.8	2.3	Sioux City Seed Co., Sioux City.....National Hybrid 128E
	15.53		80.1	16.5	1.6	2.4	0.5	1.9	Average of the 23 entries

TABLE 4. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name. address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER TWELVE—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	36.35	121.9	74.2	21.7	2.7	2.1	0.6	1.1	T. Bonar McKee, Carlisle....Reid Yel. Dent
2	34.07	114.3	69.7	21.4	2.7	2.5	0.2	2.8	Ray Redfern, Yarmouth....Reid Yel. Dent J. P.
3	31.83	106.8	70.3	19.9	2.9	2.2	0.6	1.1	Clyde Black, Ames....Black Yel. Dent
4	31.03	104.1	78.9	21.9	3.2	2.0	0.4	1.4	Clarence Meyer, Van Meter....Meyer Dent
	29.81		67.5	20.3	2.9	2.1	0.4	1.6	Average of the 8 entries
	29.26		50.8	19.5	2.8	2.1	0.8	0.9	Smith-Hughes Class, Fairfield....Composite
	26.22		80.8	18.9	3.1	2.2	1.2	2.0	Smith-Hughes Class, Mediapolis....Composite
HYBRID CLASS									
1	53.76	123.4	71.3	21.6	2.3	2.2	0.4	2.1	U.S.D.A. & Farm Crops, Ames....Iowa Hybrid 13
2	50.75	116.5	72.9	21.9	2.2	2.4	0.8	1.4	Sioux City Seed Co., Sioux City....Iowealth 25B
3	49.75	114.2	72.2	22.4	1.9	2.6	0.4	1.4	Sioux City Seed Co., Sioux City....S. C. Iowealth CJ
4	48.20	110.7	74.9	22.0	2.1	2.1	0.4	1.1	Sioux City Seed Co., Sioux City....Iowealth 26
5	47.72	109.6	68.6	22.3	2.1	2.1	0.6	1.0	Sioux City Seed Co., Sioux City....N. C. Iowealth BI
6	47.59	109.3	71.0	20.9	2.1	2.1	0.2	0.5	Sioux City Seed Co., Sioux City....Iowealth C
7	47.50	109.0	68.8	22.4	2.3	2.6	1.4	1.0	Paul N. Smith Seed Co., Onslow....King-O-Corn 130
8	47.34	108.7	84.3	21.0	2.3	2.0	0.2	1.8	Lester Pfister, El Paso, Ill....Pfister Hybrid 100
9	46.83	107.5	75.0	20.9	2.2	2.2	0.2	1.9	Sioux City Seed Co., Sioux City....National Hybrid 125
10	46.65	107.1	67.8	22.6	2.6	2.0	0.8	1.5	Funk Bros. Seed Co., Bloomington, Ill....Funk Hybrid 235
11	46.55	106.9	64.0	21.7	2.2	2.3	0.4	0.3	Funk Bros. Seed Co., Bloomington, Ill....Funk Hybrid 207
12	46.45	106.6	71.8	20.7	2.2	2.2	0.0	1.2	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 307
13	46.28	106.2	72.6	21.4	2.5	2.2	0.0	4.2	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 308
14	46.20	106.1	74.9	23.3	2.3	2.3	1.7	2.9	Sioux City Seed Co., Sioux City....Iowealth 24B (I)
15	46.16	106.0	61.7	19.2	2.2	2.3	5.6	1.5	Sioux City Seed Co., Sioux City....National Hybrid 118
16	44.85	103.0	71.8	21.0	2.5	2.2	0.2	2.3	Sioux City Seed Co., Sioux City....Iowealth D
17	44.84	102.9	68.9	22.2	2.3	2.2	0.6	1.0	Sioux City Seed Co., Sioux City....Iowealth 24B (NI)
18	44.54	102.2	66.9	22.1	2.3	2.2	0.6	0.6	Sioux City Seed Co., Sioux City....Iowealth 20F
19	44.05	101.1	75.6	18.4	3.0	2.3	0.0	2.2	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 311A
20	43.72	100.4	66.8	22.0	2.3	1.8	0.8	0.9	Funk Bros. Seed Co., Bloomington, Ill....Ill. Hybrid 546
	43.56		69.5	21.5	2.4	2.2	0.6	1.8	Average of the 37 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
DISTRICT NUMBER TWELVE—EXPERIMENTAL DIVISION									
OPEN-POLLINATED CLASS									
	26.15		71.1	22.8	2.6	1.4	0.0	1.4	Cereal Crops & Dis., Washington, D. C.....Thompson Prolific
HYBRID CLASS									
1	55.70	122.6	83.6	21.2	2.0	2.6	1.3	1.8	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3395
2	51.58	113.5	83.6	21.6	2.4	2.2	0.3	0.4	Cereal Crops & Dis., Washington, D. C.....I.Y.T. 57
3	49.33	108.6	75.8	21.3	2.4	2.4	0.4	2.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4010
4	49.28	108.5	80.0	22.3	2.2	2.0	0.3	2.6	Sioux City Seed Co., Sioux City.....National Hybrid 125E
5	49.15	108.2	83.3	22.1	2.2	2.6	0.3	0.2	Cereal Crops & Dis., Washington, D. C.....I.Y.T. 45
6	47.83	105.3	85.6	21.8	2.2	2.0	0.3	0.7	Cereal Crops & Dis., Washington, D. C.....I.Y.T. 61
7	46.73	102.9	86.7	22.4	2.2	2.4	0.3	1.7	Cereal Crops & Dis., Washington, D. C.....I.Y.T. 44
8	46.54	102.4	75.8	20.2	2.0	2.6	0.0	3.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 2111A
9	46.29	101.9	69.4	23.3	2.2	2.2	0.8	1.3	Sioux City Seed Co., Sioux City.....Iowealth 27EC
10	46.27	101.8	83.1	21.1	2.2	2.2	0.0	1.2	Cereal Crops & Dis., Washington, D. C.....I.Y.T. 46
11	45.79	100.8	61.7	21.8	2.4	2.6	0.0	2.8	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3154
12	45.70	100.6	81.7	22.3	2.0	2.4	1.0	0.7	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3357
	45.43		76.1	21.7	2.2	2.3	0.5	1.7	Average of the 25 entries

TABLE 5. AVERAGE PERFORMANCE OF STRAINS WHICH WERE ENTERED IN ALL THREE DISTRICTS OF A SECTION IN 1936.

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
NORTHERN SECTION—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	44.76	110.4	85.7	19.5	3.4	2.3	3.0	2.4	Albert M. Schmitz, Remsen.....Golden Krug
2	43.55	107.5	76.8	19.7	3.3	2.4	4.6	2.5	Frank Parcaut, Sutherland.....Parcaut Yel. Dent
3	42.98	106.0	78.2	20.2	3.4	2.5	3.5	1.5	Fred N. Rupp, Cherokee.....Rupp Early Yellow
4	41.90	103.4	83.9	20.7	3.3	2.9	5.5	2.0	Ronald M. Wilson, Sac City.....Early Krug
5	40.78	100.6	87.7	20.0	3.2	2.5	3.2	2.1	Frank Parcaut, Sutherland.....Large Golden King
	40.53		82.8	19.1	3.3	2.4	3.6	2.3	Average of the 10 entries
HYBRID CLASS									
1	55.12	114.7	91.2	18.5	3.2	2.4	3.7	1.1	Sioux City Seed Co., Sioux City....National Hybrid 110 (Edge)
2	54.26	112.9	91.8	18.4	3.0	2.2	3.5	0.8	Sioux City Seed Co., Sioux City....National Hybrid 110 (Hill)
3	53.40	111.2	75.6	20.1	1.8	2.7	2.1	2.1	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 322
4	52.74	109.8	80.1	19.7	1.8	2.8	5.6	2.3	Sioux City Seed Co., Sioux City.....Nebraska Iowealth 18 (I)
5	51.86	108.0	86.3	19.6	2.8	2.4	5.1	1.0	Sioux City Seed Co., Sioux City.....Northern Iowealth AF
6	51.37	106.9	82.2	19.2	2.2	2.7	1.4	2.5	Paul N. Smith Seed Co., Onslow.....Iowa Hybrid 931
7	51.34	106.9	85.3	20.2	1.9	2.6	12.6	3.9	Frank Parcaut, Sutherland.....Iowa Hybrid 942
8	51.31	106.8	81.4	19.4	2.2	2.7	3.6	1.4	Sioux City Seed Co., Sioux City.....Iowealth 15
9	51.22	106.6	80.5	21.1	2.4	3.0	5.7	1.9	Sioux City Seed Co., Sioux City.....National Hybrid 117
10	50.50	105.1	89.1	17.0	2.3	2.2	3.1	1.7	Sioux City Seed Co., Sioux City....Minnesota Iowealth (Edge)
11	50.23	104.6	80.6	20.5	2.0	2.5	11.8	4.0	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 942
12	50.14	104.4	82.0	19.6	2.1	2.4	5.3	1.3	Sioux City Seed Co., Sioux City.....Northern Iowealth AD
13	49.89	103.9	86.6	20.1	2.5	2.3	4.9	1.3	Sioux City Seed Co., Sioux City..Northern Iowealth AF (N.I.)
14	49.82	103.7	90.6	18.6	2.7	2.5	4.5	0.9	H.H. Turner, Grand Junction.....E4
15	49.81	103.7	84.9	19.2	2.0	2.5	12.1	2.3	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 931
16	49.65	103.4	84.9	18.7	2.2	2.6	12.1	2.4	Sioux City Seed Co., Sioux City.....Northern Iowealth AO
17	49.49	103.0	88.2	17.5	2.3	2.2	2.2	1.8	Sioux City Seed Co., Sioux City....Minnesota Iowealth (Hill)
18	49.12	102.2	74.7	23.0	2.0	2.7	6.8	1.6	Sioux City Seed Co., Sioux City.....N. C. Iowealth BC_2
19	48.83	101.6	78.4	19.5	1.9	2.6	1.2	3.8	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 325
20	48.82	101.6	80.3	21.3	1.4	3.0	2.9	1.5	Sioux City Seed Co., Sioux City.....Northern Iowealth 19
21	48.70	101.4	85.5	19.1	2.5	2.3	3.1	1.2	Sioux City Seed Co., Sioux City.....Northern Iowealth A
22	48.53	101.0	89.9	21.1	2.9	2.9	2.7	2.0	Sioux City Seed Co., Sioux City.....Iowealth AF_2
23	48.10	100.1	90.2	19.6	2.9	2.6	2.6	2.9	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 323
24	48.04	100.0	78.9	19.2	1.8	2.6	9.7	2.2	Frank Parcaut, Sutherland.....Iowa Hybrid 931
	48.04		82.0	19.4	2.3	2.5	4.9	2.1	Average of the 38 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
NORTHERN SECTION—EXPERIMENTAL DIVISION									
HYBRID CLASS									
1	56.07	116.3	72.2	17.9	2.7	2.5	4.8	1.8	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3215
2	55.25	114.6	89.4	19.7	1.7	2.2	0.5	2.3	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 335
3	54.99	114.1	81.0	18.1	2.2	2.2	4.4	1.3	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3412
4	53.85	111.7	86.3	20.8	3.7	2.4	6.8	2.0	H. H. Turner, Grand Junction.....Turner N13
5	52.94	109.8	87.9	19.3	2.5	2.3	4.3	2.6	H. H. Turner, Grand Junction.....N15
6	52.26	108.4	83.2	22.2	2.4	2.7	5.8	2.1	H. H. Turner, Grand Junction.....N14
7	51.01	105.8	80.8	19.6	2.7	2.5	5.7	2.1	H. H. Turner, Grand Junction.....E5
8	50.93	105.6	78.4	17.1	2.7	2.5	7.4	1.8	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3214
9	49.84	103.4	81.3	19.0	3.1	2.8	2.9	2.9	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4104
10	49.64	103.0	81.9	19.4	2.1	2.5	1.5	3.5	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4100
11	48.96	101.6	80.9	19.7	2.4	2.6	8.0	3.6	J. R. McNeilly, Center Junction.....Hybrid 1944
	48.21		82.3	18.7	2.4	2.3	3.4	2.2	Average of the 23 entries

TABLE 5. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
NORTH CENTRAL SECTION—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	39.01	106.1	82.3	21.1	3.8	2.3	0.8	0.9	Albert M. Schmitz, Remsen.....Golden Krug
2	38.88	105.8	79.2	21.4	3.8	2.7	1.7	0.9	Ronald M. Wilson, Sac City.....Early Krug
3	38.69	105.3	69.4	23.1	3.3	2.6	1.5	0.9	Ronald M. Wilson, Sac City.....Morcorn
4	38.62	105.1	81.3	21.9	3.4	2.4	0.8	1.9	Albert M. Schmitz, Remsen.....Golden Harvest
5	38.42	104.5	80.5	20.6	3.5	2.2	0.6	1.8	Frank Parcaut, Sutherland.....Large Golden King
6	37.73	102.7	72.0	20.8	3.9	2.3	0.8	0.6	Fred N. Rupp, Cherokee.....Triple Dent
7	37.37	101.7	72.7	20.6	4.1	2.4	1.2	0.7	Fred N. Rupp, Cherokee.....Rupp Early Yellow
	36.75		77.4	21.4	3.7	2.4	1.1	1.2	Average of the 10 entries
HYBRID CLASS									
1	54.20	120.0	74.5	22.3	2.6	2.7	1.5	0.7	Sioux City Seed Co., Sioux City.....N. C. Iowealth BA (N.I.)
2	50.64	112.2	82.1	20.2	2.5	2.3	5.2	1.6	Frank Parcaut, Sutherland.....Iowa Hybrid 942
3	50.56	112.0	77.1	23.1	2.4	2.8	2.0	1.4	Sioux City Seed Co., Sioux City.....S. C. Iowealth CI
4	50.40	111.6	74.4	22.1	1.9	2.7	2.3	1.1	Sioux City Seed Co., Sioux City.....Nebraska Iowealth 18 (I)
5	50.17	111.1	77.4	24.6	2.5	2.8	0.9	0.5	Sioux City Seed Co., Sioux City.....Iowealth 26
6	49.85	110.4	85.0	24.6	2.6	3.0	1.4	1.7	Sioux City Seed Co., Sioux City.....Iowealth 22B
7	49.80	110.3	78.2	23.3	2.3	2.6	1.7	0.8	Sioux City Seed Co., Sioux City.....National Hybrid 117
8	49.78	110.3	68.7	24.2	2.1	2.4	2.6	1.0	Sioux City Seed Co., Sioux City.....Iowealth BC_4
9	48.99	108.5	68.4	21.9	2.4	2.4	1.5	0.4	Lester Pfister, El Paso, Ill.....Pfister Hybrid 81
10	48.82	108.1	71.3	21.1	2.1	2.3	0.7	0.7	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 322
11	48.30	107.0	75.4	21.1	2.2	2.3	5.6	0.9	Wm. Jugenheimer & Son, Eldridge.....Iowa Hybrid 939
12	47.99	106.3	71.2	21.0	2.0	2.3	4.6	0.4	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 939
13	47.77	105.8	80.7	23.6	2.9	2.6	0.9	0.8	Sioux City Seed Co., Sioux City.....S. C. Iowealth 23
14	47.53	105.3	69.0	22.2	2.6	2.6	1.1	0.6	Sioux City Seed Co., Sioux City.....Iowealth 20B
15	47.51	105.2	74.4	21.5	1.9	2.6	2.0	0.8	Sioux City Seed Co., Sioux City.....Northern Iowealth AD
16	46.91	103.9	70.0	24.6	2.4	2.6	2.3	0.6	Sioux City Seed Co., Sioux City.....N. C. Iowealth BC_2
17	46.82	103.7	71.0	24.2	2.0	2.6	1.4	1.7	Sioux City Seed Co., Sioux City.....N. C. Iowealth BI
18	46.78	103.6	75.4	23.7	2.4	2.5	1.6	2.1	Sioux City Seed Co., Sioux City..Nebraska Iowealth 18 (N.I.)
19	46.73	103.5	74.3	22.2	2.4	2.7	0.9	1.7	Sioux City Seed Co., Sioux City.....N. C. Iowealth BA (I)
20	46.69	103.4	77.7	19.3	3.1	2.6	0.7	1.8	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 315
21	46.51	103.0	80.7	20.7	2.2	2.5	0.3	0.8	Sioux City Seed Co., Sioux City.....Iowealth 15
22	46.27	102.5	74.6	21.0	1.9	2.1	6.1	0.9	Paul N. Smith Seed Co., Onslow.....Iowa Hybrid 939
23	46.05	102.0	73.9	22.1	1.8	2.4	0.8	1.1	Sioux City Seed Co., Sioux City.....Iowealth 19
24	45.66	101.1	76.6	20.9	2.6	2.3	6.9	3.3	H. H. Turner, Grand Junction.....Iowa Hybrid 942
25	45.49	100.8	72.9	20.2	2.4	2.3	4.6	0.9	Wm. Jugenheimer & Son, Eldridge.....Iowa Hybrid 942
26	45.48	100.7	79.7	23.8	2.3	2.6	1.0	0.7	Sioux City Seed Co., Sioux City.....Iowealth 24
27	45.23	100.2	76.4	25.1	2.7	2.5	0.9	1.0	Sioux City Seed Co., Sioux City.....Central Iowealth 21
	45.15		75.0	22.0	2.4	2.5	2.0	1.2	Average of the 55 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
NORTH CENTRAL SECTION—EXPERIMENTAL DIVISION									
HYBRID CLASS									
1	50.97	115.3	73.7	22.1	2.4	2.7	4.1	0.7	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3088
2	48.99	110.9	81.6	23.2	2.4	2.6	1.7	0.9	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3299
3	47.09	106.6	67.4	20.2	2.2	2.5	3.2	0.7	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3181
4	46.51	105.3	83.8	22.0	2.4	2.9	0.4	0.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308D
5	45.68	103.4	54.7	18.2	2.2	2.6	1.7	1.0	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3090
6	45.52	103.0	76.0	20.3	2.3	2.6	0.8	0.8	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 326
7	44.99	101.8	78.6	21.2	1.9	2.5	1.3	1.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4025
8	44.78	101.3	65.7	20.7	2.1	2.6	1.6	0.4	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3422
9	44.59	100.9	83.5	20.7	2.3	2.0	0.0	1.6	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4017
	44.19		74.2	21.3	2.3	2.5	1.3	1.1	Average of the 19 entries

TABLE 5. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped	Damaged	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	ears pct.	seed pct.	
SOUTH CENTRAL SECTION—REGULAR DIVISION									
OPEN-POLLINATED CLASS									
1	26.06	107.1	80.4	18.5	2.9	2.9	2.4	1.2	Ronald M. Wilson, Sac City.....Morcorn
2	25.45	104.6	83.9	18.4	2.9	2.8	2.1	0.7	Clarence Meyer, Van Meter.....Meyer Dent
3	24.32	100.0	78.2	17.1	3.3	2.9	3.7	2.5	Clyde Black, Ames.....Black Yel. Dent
	24.33		81.1	17.8	3.0	2.9	2.3	1.7	Average of the 6 entries
HYBRID CLASS									
1	38.26	115.9	78.4	19.9	2.6	3.1	2.1	0.7	Sioux City Seed Co., Sioux City.....Iowealth 25B
2	38.21	115.8	81.5	18.3	2.9	2.7	2.4	1.4	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 13
3	37.92	114.9	84.3	16.8	2.7	2.8	1.1	1.2	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 308
4	37.44	113.5	83.4	17.5	2.3	2.7	1.1	1.8	Sioux City Seed Co., Sioux City.....National Hybrid 125
5	37.35	113.2	89.4	18.9	2.0	2.9	0.7	1.0	Sioux City Seed Co., Sioux City.....Iowealth 22B
6	36.98	112.1	84.7	17.8	2.6	2.7	1.0	2.4	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 307
7	36.82	111.6	70.9	17.6	2.0	2.8	0.9	0.9	Sioux City Seed Co., Sioux City.....Iowealth 20B
8	36.72	111.3	79.2	17.2	1.4	2.5	1.4	1.7	Sioux City Seed Co., Sioux City....Nebraska Iowealth 18 (I)
9	36.46	110.5	91.8	19.8	2.4	2.7	1.7	1.9	Sioux City Seed Co., Sioux City.....Iowealth 24B (I)
10	36.38	110.2	85.3	18.7	1.7	2.4	1.3	2.0	Sioux City Seed Co., Sioux City.....N. C. Iowealth BI
11	36.37	110.2	83.0	18.7	2.3	2.6	1.2	1.0	Sioux City Seed Co., Sioux City.....Iowealth CC
12	36.18	109.6	86.6	18.9	2.3	3.0	1.1	0.9	Sioux City Seed Co., Sioux City.....S. C. Iowealth 25
13	35.97	109.0	81.4	16.8	2.2	2.4	0.3	1.9	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 325
14	35.93	108.9	79.2	19.2	2.4	2.9	1.9	0.9	Sioux City Seed Co., Sioux City.....Central Iowealth 21
15	35.83	108.6	79.3	18.8	2.1	2.5	1.2	1.5	Sioux City Seed Co., Sioux City.....Iowealth 24A
16	35.24	106.8	81.3	17.8	1.6	2.7	2.4	1.1	Sioux City Seed Co., Sioux City.....S. C. Iowealth CI
17	35.21	106.7	82.9	19.9	2.4	2.9	1.9	0.9	Paul N. Smith Seed Co., Onslow.....King-O-Corn 130
17	35.21	106.7	72.7	19.1	2.4	2.8	2.6	1.3	Sioux City Seed Co., Sioux City.....Iowealth 25A
19	34.95	105.9	80.6	19.5	2.4	2.6	2.7	2.1	Sioux City Seed Co,, Sioux City.....Iowealth 24B (NI)
20	34.67	105.1	82.1	19.2	2.1	2.5	2.5	0.5	Funk Bros. Seed Co., Bloomington, Ill.....Funk Hybrid 235
21	34.38	104.2	76.2	18.8	2.5	2.7	0.9	0.5	Sioux City Seed Co., Sioux City.....S. C. Iowealth 23
22	34.24	103.8	79.0	18.0	2.1	2.7	1.0	0.5	Sioux City Seed Co., Sioux City.....Iowealth CC_3
23	34.13	103.4	78.0	18.0	1.6	2.4	1.6	0.4	Sioux City Seed Co., Sioux City.....Iowealth BC_4
24	34.05	103.2	76.3	17.9	2.0	2.3	3.3	1.1	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 939
25	34.01	103.1	84.6	18.6	2.5	2.7	1.6	1.7	Sioux City Seed Co., Sioux City.....S. C. Iowealth CJ
26	33.99	103.0	86.1	15.8	2.1	2.7	1.3	1.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 311A
27	33.79	102.4	83.0	19.7	2.5	2.7	1.0	2.1	Sioux City Seed Co., Sioux City.....Iowealth D
28	33.77	102.3	81.1	18.6	2.1	2.8	1.5	0.9	Sioux City Seed Co., Sioux City.....Iowealth C
	33.00		80.1	18.1	2.2	2.6	1.6	1.3	Average of the 54 entries

Rank	Acre yield Bu.	Acre yield Pct. of av.	Stand pct.	Moist. pct.	Lodging grade	Ear ht.	Dropped ears pct.	Damaged seed pct.	Name, address, variety
SOUTH CENTRAL SECTION—EXPERIMENTAL DIVISION									
OPEN-POLLINATED CLASS									
	22.49		85.9	17.3	2.8	2.7	1.8	1.3	W. C. & G. V. Harkrader, Adel..Harkrader Smooth Type Y.D.
~~OPEN-POLLINATED~~ CLASS									
1	41.64	125.1	84.0	18.0	3.0	3.0	2.0	0.4	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3342
2	38.48	115.6	87.8	18.0	3.7	2.6	0.5	0.8	Genetics Section, Ames.....6593 x 6552
3	38.41	115.4	84.6	19.5	2.1	2.7	0.6	2.8	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 305A
4	37.90	113.8	91.0	19.6	2.6	2.4	1.6	1.5	Genetics Section, Ames.....6592 x 6370
5	37.72	113.3	80.0	17.9	2.0	3.0	1.5	0.8	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3362
6	37.33	112.1	85.4	20.9	2.9	2.6	1.3	1.1	Genetics Section, Ames.....6600 x 6251
7	37.21	111.8	77.2	16.8	1.9	2.6	2.7	0.4	Sioux City Seed Co., Sioux City.....Iowealth 21EG
8	36.67	110.2	80.9	17.0	2.1	2.6	0.8	2.3	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 314
9	36.56	109.8	89.2	16.8	2.8	2.8	2.2	0.8	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4004
10	36.47	109.6	91.4	16.6	1.4	2.2	0.8	2.1	Genetics Section, Ames.....6592 x 6285
11	36.15	108.6	90.2	17.5	2.2	3.0	0.5	1.5	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308D
12	35.90	107.8	77.5	17.0	2.2	2.7	1.5	1.4	J. R. McNeilly, Center Junction.....Hybrid 1977
13	35.43	106.4	91.3	18.5	1.4	2.0	1.9	1.6	Genetics Section, Ames.....6591 x 6287
14	35.08	105.4	86.3	20.1	2.0	2.6	2.1	1.8	Sioux City Seed Co., Sioux City.....Iowealth 23E
15	34.80	104.5	88.4	18.3	2.0	2.4	0.5	3.2	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4011
16	34.63	104.0	80.6	18.3	2.1	2.1	0.4	1.7	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4056
17	34.56	103.8	75.4	17.7	1.7	3.0	1.7	1.3	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3110
18	34.48	103.6	81.7	19.2	2.1	2.5	1.4	0.7	Sioux City Seed Co., Sioux City.....Iowealth 25EF
19	34.31	103.1	82.5	17.4	2.0	2.6	0.0	3.4	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4025
20	34.17	102.6	87.5	16.9	1.8	2.3	1.7	3.6	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3340
21	33.95	102.0	92.1	17.0	1.9	2.4	0.6	2.5	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4007
22	33.69	101.2	85.9	18.2	2.2	2.4	0.4	2.5	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4086
23	33.56	100.8	77.2	17.8	1.7	2.6	0.4	2.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 2111A
24	33.28	100.0	85.0	18.6	1.6	2.5	4.0	1.8	Sioux City Seed Co., Sioux City.....Iowealth 20C
24	33.28	100.0	91.1	16.9	1.1	2.1	0.6	1.6	Genetics Section, Ames.....6591 x 6339
	33.29		84.6	18.1	2.0	2.6	1.2	1.7	Average of the 44 entries

TABLE 5. (Continued)

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
					SOUTHERN SECTION—REGULAR DIVISION				
					OPEN-POLLINATED CLASS				
1	20.98	110.8	77.1	18.3	2.4	2.3	1.5	1.6	T. Bonar McKee, Carlisle....Reid Yel. Dent
2	19.20	101.4	73.4	17.7	2.6	2.5	1.8	1.6	Clyde Black, Ames....Black Yel. Dent
3	19.08	100.7	80.5	19.3	2.8	2.2	1.2	1.9	Clarence Meyer, Van Meter....Meyer Dent
	18.94		75.7	17.9	2.6	2.2	1.5	1.7	Average of the 5 entries
					HYBRID CLASS				
1	33.91	126.9	78.5	17.6	2.1	2.5	1.4	2.9	U.S.D.A. & Farm Crops, Ames....Iowa Hybrid 13
2	31.05	116.2	72.9	18.6	2.1	2.1	1.9	0.9	Sioux City Seed Co., Sioux City..North Central Iowealth BI
3	30.44	113.9	72.6	18.1	2.2	2.5	1.2	1.8	Sioux City Seed Co., Sioux City....Iowealth 25B
4	30.33	113.5	77.0	17.9	1.8	2.1	0.8	3.1	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 307
5	29.41	110.1	74.5	19.7	2.1	2.1	1.8	2.4	Funk Bros. Seed Co., Bloomington, Ill....Funk Hybrid 235
6	29.39	110.0	75.5	18.2	2.2	2.2	0.8	3.3	Sioux City Seed Co., Sioux City....Iowealth D
7	29.20	109.3	68.3	18.4	2.3	2.3	1.4	1.4	Funk Bros. Seed Co., Bloomington, Ill....Funk Hybrid 207
8	29.00	108.5	75.3	17.8	2.1	2.4	0.5	3.2	Pioneer Hi-Bred Corn Co., Des Moines....Pioneer Hi-Bred 308
9	28.89	108.1	78.3	20.0	2.0	2.3	1.5	2.6	Sioux City Seed Co., Sioux City....S. C. Iowealth CJ
10	28.78	107.7	75.5	18.7	1.9	2.1	1.5	1.6	Sioux City Seed Co., Sioux City....Iowealth C
11	28.72	107.5	78.0	19.0	2.1	2.2	0.7	0.9	Sioux City Seed Co., Sioux City....Iowealth 26
12	28.27	105.8	88.0	20.2	1.8	2.1	0.7	1.9	Lester Pfister, El Paso, Ill....Pfister Hybrid 100
13	28.16	105.4	73.4	19.8	2.0	2.4	1.6	1.9	Paul N. Smith Seed Co., Onslow....King-O-Corn 130
14	27.69	103.6	75.1	18.1	2.0	2.4	1.6	1.4	Sioux City Seed Co., Sioux City....S. C. Iowealth CI
15	27.66	103.5	74.7	20.3	2.1	2.0	1.6	1.6	Sioux City Seed Co., Sioux City....Iowealth CC
16	27.13	101.5	70.6	16.8	2.1	2.2	3.8	1.7	Sioux City Seed Co., Sioux City....National Hybrid 118
17	27.05	101.2	73.5	20.0	2.0	2.2	1.2	1.8	Sioux City Seed Co., Sioux City....Iowealth 24B (N.I.)
18	26.97	100.9	82.6	19.2	1.9	2.2	1.6	2.1	Sioux City Seed Co., Sioux City....Iowealth 24B (I)
19	26.95	100.9	79.5	18.4	2.1	2.2	1.6	1.9	Sioux City Seed Co., Sioux City....Iowealth 24
20	26.73	100.0	69.3	18.6	2.0	2.3	1.2	1.7	Sioux City Seed Co., Sioux City....Iowealth 20F
	26.72		74.0	18.9	2.1	2.2	1.3	2.3	Average of the 36 entries

Rank	Acre yield		Stand	Moist.	Lodging	Ear	Dropped ears	Damaged seed	Name, address, variety
	Bu.	Pct. of av.	pct.	pct.	grade	ht.	pct.	pct.	
SOUTHERN SECTION—EXPERIMENTAL DIVISION									
HYBRID CLASS									
1	33.18	118.1	82.3	17.4	2.1	2.5	2.2	2.1	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3395
2	30.31	107.9	83.8	19.3	1.9	2.3	0.9	0.9	Cereal Crops & Dis., U.S.D.A., Washington, D. C.....I.Y.T. 45
3	30.04	106.9	81.3	19.6	2.2	2.1	1.3	1.7	Sioux City Seed Co., Sioux City.....National Hybrid 125E
4	29.97	106.7	65.0	18.0	2.3	2.8	1.6	2.3	U.S.D.A. & Farm Crops, Ames.....Iowa Hybrid 3154
5	29.71	105.7	72.9	19.9	2.1	2.4	1.0	1.8	Sioux City Seed Co., Sioux City.....Iowealth 27EC
6	29.23	104.0	82.4	18.7	1.7	2.2	0.6	1.2	Cereal Crops & Dis., U.S.D.A., Washington, D. C.....I.Y.T. 46
7	28.48	101.4	83.9	19.8	1.8	2.4	0.6	0.9	Cereal Crops & Dis., U.S.D.A., Washington, D. C.....I.Y.T. 57
8	28.40	101.1	81.8	18.6	2.1	2.1	0.5	2.6	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 4010
9	28.22	100.4	88.0	20.1	1.6	2.5	1.2	1.4	Cereal Crops & Dis., U.S.D.A., Washington, D. C.....I.Y.T. 44
10	28.13	100.1	78.6	20.4	1.4	2.5	0.5	3.1	Pioneer Hi-Bred Corn Co., Des Moines..Pioneer Hi-Bred 308C
	28.10		78.8	19.3	1.9	2.3	1.0	2.1	Average of the 23 entries

sorbed sufficient moisture to germinate on the ear, while other ears developed considerable mold and rot. The chief objection to the use of hybrid seed in northwestern Iowa is the high percentage of dropped ears. Some of the newer hybrid strains are outstanding in their ability to retain their ears.

Perhaps the most outstanding entry in the Northern Section was Pioneer Hi-Bred 335. This entry was made originally in the Regular Division but at the end of the season was changed to the Experimental Division because an insufficient quantity of seed had been produced. Pioneer Hi-Bred 335 had a better yield record than any of the regular hybrids in the Northern Section, had satisfactory moisture and lodging records and in District 1 dropped only 1.1 percent of its ears, while some of the regular entries dropped nearly one-fourth of their ears. In 1935 this same hybrid, entered as Hi-Bred 2222, was second highest in yield among the experimental entries in the Northern Section and its other characteristics were satisfactory. It is a promising combination.

Golden Krug was the outstanding entry in the open-pollinated class in both the Northern and North Central sections. It was entered by Albert M. Schmitz of Remsen. National Hybrid 110, entered by the Sioux City Seed Company, was the highest yielding combination among the regular hybrids in the Northern Section. Iowa Hybrid 3215, white in color, had the highest yield of the experimental hybrids. Another promising experimental hybrid is Iowa Hybrid 3412. The highest yielding entries in the three classes in each of the four sections are listed below.

Regular Open-Pollinated Class

Northern Section	Golden Krug	by Albert M. Schmitz
North Central Section	Golden Krug	by Albert M. Schmitz
South Central Section	Morcorn	by Ronald M. Wilson
Southern Section	Reid Yel. Dent	by T. Bonar McKee

Regular Hybrid Class

Northern Section	National Hybrid 110	by Sioux City Seed Co.
North Central Section	North Central Iowealth BA	by Sioux City Seed Co.
South Central Section	Iowealth 25B	by Sioux City Seed Co.
Southern Section	Iowa Hybrid 13	by U.S.D.A. & Farm Crops

Experimental Hybrid Class		
Northern Section	Iowa Hybrid 3215	by U.S.D.A. & Farm Crops
North Central Section	Iowa Hybrid 3088	by U.S.D.A. & Farm Crops
South Central Section	Iowa Hybrid 3342	by U.S.D.A. & Farm Crops
Southern Section	Iowa Hybrid 3395	by U.S.D.A. & Farm Crops

An unusual feature of the above results is that the highest yield in the experimental hybrid class in all four sections was made by entries from the U.S.D.A. and Farm Crops Subsection of the Iowa Agricultural Experiment Station, while the highest yielding regular hybrid in three of the four sections was entered by the Sioux City Seed Company. Two entries made by the Pioneer Hi-Bred Corn Co. in the regular hybrid class were first in the Northern and South Central sections until it became necessary to change their classification to the experimental division because less than 25 bushels of seed were produced as a result of the drouth.

Iowealth 25B, highest yielding regular hybrid in the South Central Section, was entered in the yield test this year for the first time. National Hybrid 110, which was first in yield among the regular hybrids in the Northern Section, was also entered this year for the first time. Both hybrids are products of the Sioux City Seed Company.

The Banner Trophy was awarded to the U.S.D.A. and Farm Crops Subsection on the performance of Iowa Hybrid 13 in the Southern Section. This hybrid yielded 26.9 percent more than the average of its class and 79.0 percent more than the average of the open-pollinated varieties. It was also the second highest yielding hybrid in the South Central Section. Iowa Hybrid 13 won the Banner Trophy because of its ability to withstand the heat and drouth. In 1934 this hybrid also won the Banner Trophy because of its ability to yield well in a dry year. It repeated its performance this year under climatic conditions even more severe than in 1934. Iowa Hybrid 13 was the highest yielding hybrid in districts 10 and 12 and fourth in District 11.

YIELDS FROM LOW GERMINATING SEED

The early freeze in the fall of 1935 injured much of the seed corn in Iowa. Consequently a large quantity of corn

TABLE 6. RECORDS OF YIELD, MOISTURE AND LODGING EXPRESSED AS PERCENTAGES OF THE OPEN-POLLINATED AVERAGES FOR REGULAR SECTION ENTRIES IN THE IOWA CORN YIELD TEST OF 1936 AND ONE OR MORE PREVIOUS YEARS. ONLY THOSE STRAINS YIELDING ABOVE THE AVERAGE OF THE OPEN-POLLINATED ARE LISTED.

Name	Post Office	County	Kind of corn	No. of years	Percent of average O. P.		
					Yield	Moist.	Lodging
NORTHERN SECTION							
Open-Pollinated							
Wm. McArthur	Mason City	Cerro Gordo	Golden King	14	101.8	85.8	96.3
Fred N. Rupp	Cherokee	Cherokee	Rupp Early Yel.	7	109.5	106.5	102.0
Albert M. Schmitz	Remsen	Plymouth	Golden Krug	4	108.3	101.8	104.3
Arthur L. Look	LuVerne	Kossuth	Kossuth Reliance	2	100.7	98.2	100.0
Regular Hybrids							
U.S.D.A. & F. C. Subsec.	Ames	Story	Iowa Hybrid 931	7	118.1	104.0	73.6
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 355	5	108.2	95.3	74.4
H. H. Turner	Grand Junction	Greene	E4	4	116.1	92.6	79.3
Sioux City Seed Co.	Sioux City	Woodbury	Northern Iowealth AF	3	119.8	99.4	73.5
Frank Parcaut	Sutherland	O'Brien	Iowa Hybrid 931	2	120.0	99.7	65.2
U.S.D.A. & F. C. Subsec.	Ames	Story	Iowa Hybrid 942	2	118.6	103.7	61.4
Sioux City Seed Co.	Sioux City	Woodbury	Northern Iowealth AO	2	118.1	101.2	73.0
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 323	2	115.8	99.5	81.9
Sioux City Seed Co.	Sioux City	Woodbury	Northern Iowealth AD	2	114.6	107.5	57.7
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 357	2	112.1	89.0	67.4
Northrup, King & Co.	Minnepolis, Minn.	Hennepin	Kingscrost Reid 13L	2	102.6	94.6	92.9
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 356	2	102.1	101.5	54.2

Name	Post Office	County	Kind of corn	No. of years	Percent of average O. P.		
					Yield	Moist.	Lodging
NORTH CENTRAL SECTION							
Open-Pollinated							
H. F. Osterland	Ackley	Franklin	Osterland Yel. Dent	17	101.6	102.0	101.9
Ronald M. Wilson	Sac City	Sac	Early Krug	5	106.2	102.6	99.2
Fred Rupp	Cherokee	Cherokee	Triple Dent	3	102.8	97.0	98.0
Albert M. Schmitz	Remsen	Plymouth	Golden Krug	2	107.0	94.7	106.1
Ronald M. Wilson	Sac City	Sac	Morcorn	2	103.5	109.0	94.6
Albert M. Schmitz	Remsen	Plymouth	Golden Harvest	2	102.3	104.5	98.4
Regular Hybrids							
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 323	8	113.1	95.4	87.8
U.S.D.A. & F. C. Subsec.	Ames	Story	Iowa Hybrid 942	7	117.1	99.3	78.6
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 311	7	109.7	102.1	73.2
U.S.D.A. & F. C. Subsec.	Ames	Story	Iowa Hybrid 939	6	120.9	101.0	67.9
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 311A	4	116.6	96.3	73.6
Sioux City Seed Co.	Sioux City	Woodbury	North Central Iowealth BA	3	121.8	102.3	63.6
Sioux City Seed Co.	Sioux City	Woodbury	North Central Iowealth BC_2	3	119.6	109.7	63.8
H. H. Turner	Grand Junction	Greene	Iowa Hybrid 942	3	117.1	91.3	70.9
Sioux City Seed Co.	Sioux City	Woodbury	North Central Iowealth BI	3	115.4	112.8	55.9
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 315	2	124.0	91.5	80.0
Sioux City Seed Co.	Sioux City	Woodbury	South Central Iowealth CI	2	122.9	107.5	58.7
H. H. Turner	Grand Junction	Greene	Iowa Hybrid 939	2	121.7	97.6	64.5
Sioux City Seed Co.	Sioux City	Woodbury	Northern Iowealth AQ	2	120.1	102.6	53.6
O. W. Johnson	LeGrand	Marshall	Iowa Hybrid 942	2	117.5	95.1	69.3
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 326	2	115.9	98.3	64.5
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 315C	2	114.4	103.1	78.5

Name	Post Office	County	Kind of corn	No. of years	Percent of average O. P. Yield	Moist.	Lodging
SOUTH CENTRAL SECTION							
Open-Pollinated							
Clyde Black	Ames	Story	Black Yel. Dent	17	101.6	100.9	100.1
G. V. Harkrader	Adel	Dallas	Harkrader Yel. Dent	11	104.7	96.3	97.6
Clarence Meyer	Van Meter	Madison	Meyer Dent	8	107.0	102.6	97.3
Regular Hybrids							
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 311	7	110.8	92.1	74.5
U.S.D.A. & F. C. Subsec.	Ames	Story	Iowa Hybrid 13	6	129.1	98.3	82.6
U.S.D.A. & F. C. Subsec.	Ames	Story	Iowa Hybrid 939	6	115.9	92.0	70.2
U.S.D.A. & F. C. Subsec.	Ames	Story	Iowa Hybrid 942	6	113.5	87.7	81.6
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 311A	5	120.5	89.8	77.3
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 308	2	137.5	94.9	83.0
Sioux City Seed Co.	Sioux City	Woodbury	Iowealth CC	2	130.1	108.2	65.1
Sioux City Seed Co.	Sioux City	Woodbury	South Central Iowealth CJ	2	129.7	102.1	77.9
Sioux City Seed Co.	Sioux City	Woodbury	South Central Iowealth CI	2	128.1	99.2	47.4
SOUTHERN SECTION							
Open-Pollinated							
Clyde Black	Ames	Story	Black Yel. Dent	17	101.7	101.1	99.4
Clarence Meyer	Van Meter	Madison	Meyer Dent	8	106.5	103.1	98.5
T. Bonar McKee	Carlisle	Warren	Reid Yel. Dent	3	106.8	103.6	100.5
Regular Hybrids							
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 311	7	110.7	92.1	77.4
U.S.D.A. & F. C. Subsec.	Ames	Story	Iowa Hybrid 13	6	132.8	97.6	79.8
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 306	6	114.1	101.6	86.9
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 311A	5	120.0	91.6	80.7
Sioux City Seed Co.	Sioux City	Woodbury	South Central Iowealth CJ	2	136.1	105.7	74.1
Pioneer Hi-Bred Corn Co.	Des Moines	Polk	Pioneer Hi-Bred 308	2	136.1	97.4	77.7
Sioux City Seed Co.	Sioux City	Woodbury	South Central Iowealth CI	2	128.8	99.7	58.6
Sioux City Seed Co.	Sioux City	Woodbury	Iowealth CC	2	128.3	112.3	66.5

planted in the spring of 1936 was relatively low in germination. Although it was generally believed that satisfactory stands and yields could be obtained by planting the lower germinating seed at a rate thicker than normal, there were few data to support this belief. To obtain more definite information the following tests were made: Four regular hybrids were chosen of which a sample of high germinating seed was available. The high germinating seed was planted three seeds to the hill. Seventy-five and sixty percent germinating samples were also available of each of the four hybrids. The 75 percent germinating samples were planted at the rate of four seeds per hill and the 60 percent samples at five seeds per hill. Theoretically, the average number of plants per plot resulting from the three rates of planting should be equal, although the number of plants to the hill would vary considerably more where the lower germinating seed was used than where the higher germinating seed was planted. Ten replications of each sample were planted. The tests for the different hybrids were made in districts where they were adapted. The results of this test are listed below. In the case of Hi-Bred 355 the results from the 60 percent germinating seed were lost as a result of an error in planting.

	Percentage germination	Yield in bu.	Percentage stand
Hi-Bred 355 (Test made in Dist. 1)	100	29.42	72.9
	75	29.50	73.9
Hi-Bred 323 (Test made in Dist. 5)	100	34.62	87.9
	75	36.94	87.8
	60	37.83	87.8
Hi-Bred 311 (Average of two entries Test made in Dist. 8)	100	32.46	83.1
	75	31.74	84.9
	60	29.37	79.0
Iowa Hybrid 13 (Test made in Dist. 9)	100	32.76	84.7
	75	34.36	87.5
	60	31.46	82.6

These results indicate that satisfactory stands and yields can be obtained from low germinating seed corn if the rate of planting is adjusted accurately, increasing it in proportion to the decrease in percentage of viable seed.

per hill and the 60 percent samples at 5 seeds per hill. Theo-

RESULTS OVER A PERIOD OF YEARS

The yield, moisture and lodging records of the regular section entries in the 1936 yield test which have been entered in the regular division in one or more previous years are shown in table 6. These data are expressed as percentages of the mean of the section open-pollinated entries. Only those having a mean percentage yield of 100 or greater are given. The different kinds of corn have not all been entered the same number of years or in the same years; therefore a direct comparison of these performance records is somewhat misleading. The data do, however, give an accurate picture of the relative performance of these entries on the basis of the average of the open-pollinated strains with which they are compared.

A high percentage of yield means more corn was produced. A low percentage for lodging means satisfactory lodging resistance. Lower percentages of moisture indicate greater maturity at the time of harvest.

The prospective buyer of either hybrid or open-pollinated seed corn should study the data in table 6. Many strains yield relatively more in some seasons than in others. It is highly desirable to know how a strain performed as an average for a number of years. A high yield in any one year does not necessarily mean that this strain will do well in succeeding years, because growing conditions in the one season might have been exceptionally favorable for its best performance. But if a strain has given relatively high yields in each of several years the buyer can assume with some degree of confidence that it will prove satisfactory.

In the open-pollinated class of the Northern Section, Rupp Early Yellow has made the highest yield record over a period of years. Its yield is 9.5 percent more than the average of the open-pollinated varieties, but it probably is not best adapted to the northern-most tier of counties because of a relatively high moisture content. Golden Krug, entered by Albert M. Schmitz, has a slightly lower yield but is somewhat earlier in maturity than Rupp Early Yellow.

Many of the hybrids of the Northern Section listed in table 6 have been in the yield test for only a 2-year period and their

record is, therefore, not as reliable as those of the more thoroughly tested hybrids. This is illustrated by the following example: Iowa Hybrid 931 has been in the test for 7 years. Its average yield over that period is 118.1 percent of the average open-pollinated varieties and its moisture percentage 104. Iowa Hybrid 942 has been in the test in this section 2 years. Its yield and moisture percentages are 118.6 and 103.7, respectively. On the basis of this table one would conclude that 942 was at least as high yielding and as early maturing as 931 in the Northern Section. But a comparison of the two hybrids in the two tests in which they were directly compared shows 931 to be the better yielding and more mature hybrid. Because of its late maturity 942 is not recommended for any part of the Northern Section, while 931 is recommended for the southern tier of counties in this section.

One of the difficulties in obtaining a satisfactory hybrid for northern Iowa is to find one sufficiently early to escape damage in a short growing season and yet able to make a satisfactory yield as compared with later hybrids in longer growing seasons. Pioneer Hi-Bred 357, on the basis of 2 years, had a relative moisture percentage of 89.0 and yielded 12.1 percent more than the open-pollinated corn. The following hybrids in the Northern Section have yielded 10 percent more than the average of the open-pollinated class and have satisfactory records of maturity and lodging resistance in at least 2 years' tests: Iowa Hybrid 931, Pioneer Hi-Bred 323, Pioneer Hi-Bred 357, Northern Iowealth AO, Northern Iowealth AF and Turner E4.

The outstanding open-pollinated entries in the North Central Section as indicated in table 6 are Golden Krug and Early Krug. Golden Krug has a slightly higher yield and a lower moisture percentage but has been tested only 2 years, while Early Krug has been tested 5 years. In the hybrid class several combinations adapted to this section have excellent performance records for yield and lodging resistance. These include Iowa Hybrid 939, Iowa Hybrid 942, Pioneer Hi-Bred 315, Pioneer Hi-Bred 311A, Pioneer Hi-Bred 311C, Pioneer Hi-Bred 326, Pioneer Hi-Bred 323, North Central Iowealth BC_2

and Northern Iowealth AQ. Northern Iowealth AQ is the most outstanding hybrid for lodging resistance.

During the years of 1933 to 1935, inclusive, the South Central and Southern sections were combined into a single section. In compiling table 6 the same data have been used for these years in both the South Central and Southern sections. Among the open-pollinated strains in the South Central Section, Meyer Yellow Dent and Harkrader Yellow Dent have made the best showing. Harkrader Yellow Dent, although somewhat lower in yield than Meyer Yellow Dent, is an earlier maturing strain.

The more outstanding hybrids in this section include Iowa Hybrid 13, Pioneer Hi-Bred 311A, Pioneer Hi-Bred 308, South Central Iowealth CJ and South Central Iowealth CI. Iowa Hybrid 942 and Iowa Hybrid 939 made good records in the 1936 test, but they are best adapted to the northern-most counties of the South Central Section rather than farther south.

Meyer Yellow Dent and the strain of Reid Yellow Dent entered by T. Bonar McKee have the best performance records in the open-pollinated class in the Southern Section. Both of them, however, have a moisture percentage slightly higher than average. The outstanding hybrids in this section are: Iowa Hybrid 13, Pioneer Hi-Bred 306, Pioneer Hi-Bred 308, Pioneer Hi-Bred 311A and South Central Iowealth CI. South Central Iowealth CI has greater lodging resistance than any other hybrid listed in table 6 for this section.

HYBRID CORN

The purpose of the Iowa Corn Yield Test is simply to find the most satisfactory strains of corn for each district in the state. It is not conducted to portray the advantages and disadvantages of any particular class of corn. It has happened, however, that the better hybrids in the test have shown a clear, decisive superiority in yield and lodging resistance over the open-pollinated varieties. This has had much to do with the increasing demand for hybrid seed. In the production of hybrid combinations the primary purpose has been to obtain strains which could utilize sunlight, air, water and the plant food constituents more efficiently than strains previously

TABLE 7. AVERAGE YIELD OF ALL HYBRID SECTION ENTRIES IN PERCENTAGE OF THE AVERAGE YIELD OF OPEN-POLLINATED SECTION ENTRIES FOR THE YEARS 1926-1936, INCLUSIVE.

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
1	117.1	109.2	109.8	108.9	114.3	116.2	115.3	114.3	112.4	111.3	106.6
2	104.6	117.4	120.4	124.1	113.3	.....	101.6	109.5	100.5	108.6	118.0
3	97.4	102.9	109.3	114.4	110.7	105.9	102.2	107.0	119.4	105.9	126.4
4	115.5	104.6	110.0	110.1	115.5	111.8	107.2	128.8	111.2	121.2	.....
5	106.5	111.1	107.8	108.3	114.4	113.2	108.2	127.6	107.9	107.0	128.5
6	104.5	109.7	102.8	103.4	104.5	109.0	106.0	116.0	106.0	103.4	117.2
7	105.3	102.8	113.7	109.1	112.6	107.4	112.0	109.4	.....	121.7	.....
8	103.9	98.1	115.3	109.1	123.5	108.4	109.6	114.1	148.7	112.7	127.2
9	104.9	102.3	113.9	114.1	105.6	106.8	105.5	105.3	115.2	105.3	149.1
10	111.4	102.2	111.0	107.7	102.3	104.8	102.2				139.6
11	102.9	114.3	108.2	112.2	111.4	106.3	110.6				153.9
12	110.3	107.1	104.2	106.0	103.2	102.2	99.8				141.0
Av.	107.0	106.8	110.5	110.6	110.9	108.4	106.7	114.7	115.2	110.8	130.8

available, thereby producing larger acre yields and resulting in lower bushel cost of production.

The average yield of all hybrid section entries in percentage of the average yield of the open-pollinated entries is shown in table 7 for each district for the years 1926 to 1936, inclusive. The most striking feature of this table is that in the adverse seasons of 1934 and 1936 the hybrids as a group had a greater advantage over the open-pollinated varieties than in any other year. Especially is this trend evident in the 1936 data where the average increase of the hybrids in the 10 fields was 30.8 percent. In District 11, where the lowest yield was obtained, the hybrids had the greatest advantage of all, but even in the highest yielding field, District 3, where the yield was reduced somewhat by the unfavorable weather, there was an increase of 26.4 percent in favor of the hybrid strains. The increase in District 1 was only 6.6 percent. As has been explained elsewhere this is perhaps because the hail storm in August brought the effective growing season to a premature finish.

The data in table 7 for years previous to 1936 indicate that hybrids which have been placed in commercial production are better suited to western and central Iowa than to eastern Iowa. The data for 1936 show no such trend. The drouth of 1936 affected the entire state, and under the widespread adverse

TABLE 8. AVERAGE DISTRICT YIELDS, AND DIFFERENCE BETWEEN AVERAGE OF REGULAR OPEN-POLLINATED (O.P.) STRAINS, REGULAR HYBRIDS (R.H.) AND EXPERIMENTAL HYBRIDS (E.H.) FOR 1936.

Dist.	No. of entries			Average acre yield			Difference in average yield between*		
	O.P.	R.H.	E.H.	O.P.	R.H.	E.H.	O.P. and R.H.	O.P. and E.H.	R.H. and E.H.
1	10	40	31	28.43	29.84	31.10	+ 1.41	+ 2.67	+1.26
2	11	38	26	44.95	53.67	53.74	+ 8.72	+ 8.79	+0.07
3	11	38	34	47.50	60.51	57.21	+13.01	+ 9.71	—3.30
5	12	56	25	34.09	44.20	40.28	+10.11	+ 6.19	—3.92
6	10	60	28	39.23	45.91	45.14	+ 6.68	+ 5.91	—0.77
8	10	56	46	29.99	36.91	37.56	+ 6.92	+ 7.57	+0.65
9	8	54	51	19.57	29.12	28.61	+ 9.55	+ 9.04	—0.51
10	7	36	29	15.16	21.79	23.51	+ 6.63	+ 8.35	+1.72
11	5	36	23	9.68	14.70	15.53	+ 5.02	+ 5.85	+0.83
12	8	37	25	29.81	43.56	45.43	+13.75	+15.62	+1.87

* A plus sign favors the experimental hybrids or the regular hybrids when the experimental class is not being compared.

conditions the hybrids responded relatively better in all districts than the open-pollinated varieties.

Table 8 indicates the average acre yield for the three groups of entries in each of the 10 fields. In six of the 10 fields the highest average yield was made by the experimental hybrid group while in the remaining four fields the regular hybrid entries had the highest average yield. In no field did the open-pollinated varieties have the highest yield.

HYBRIDS DIFFER GREATLY IN VALUE

The great variation in yield is evidence of the fact that not all hybrid combinations are high yielding. Certain hybrids are inferior to the better open-pollinated strains. The purchaser of hybrid seed should, to safeguard his own interest, get only those hybrids which have been adequately tested.

One of the best ways of obtaining good hybrid seed is to purchase certified hybrids. To be certified a hybrid must have been entered in the Iowa Corn Yield Test, where it must have yielded at least 10 percent more than the average of the open-pollinated strains in a specific section for 2 out of the 5 years immediately preceding the year of certification. In addition, it must have been equal to the average in lodging

resistance and have had a combined advantage of yield and lodging resistance of 25 percent. The crossing field is inspected at the time of detasseling to make certain that the tassels are properly removed and that the field has sufficient isolation to prevent serious contamination. The seed itself must be of good quality and germinate not less than 90 percent.

SEED TREATMENT

The seed of each entry in the Regular Division was divided into two parts, each of which was handled as if it were a separate entry. One portion was planted without treatment; the second was treated with a commercial dust. It is thus possible to make a comparison between treated and untreated seed for the same kind of corn. The number of entries, the percentage stand, the average yield of the untreated and treated lots and the differences between them are shown in table 9.

The data were analyzed statistically and no significant differences were found in yield between treated and untreated

TABLE 9. AVERAGE YIELDS AND PERCENTAGE STAND OF UNTREATED AND TREATED ENTRIES OF OPEN-POLLINATED AND REGULAR HYBRIDS IN THE 1936 IOWA CORN YIELD TEST

District	No. entries	Percentage stand		Difference in % stand	Acre yield in bushels		Difference in yield
		Untreated	Treated		Untreated	Treated	
Open-Pollinated Strains							
1	10	79.7	82.8	+ 3.1	28.37	28.43	+0.06
2	11	83.9	86.9	+ 3.0	45.25	44.78	—0.47
3	11	83.0	81.4	— 1.6	47.04	48.17	+1.13
5	12	80.5	84.2	+ 3.7	34.28	33.89	—0.39
6	10	74.9	70.5	— 4.4	39.67	38.70	—0.97
8	10	80.3	81.0	+ 0.7	30.15	29.53	—0.62
9	8	84.2	79.3	— 4.9	19.10	19.44	+0.34
10	7	78.9	75.0	— 3.9	15.58	14.74	—0.84
11	5	75.4	74.6	— 0.8	9.79	9.59	—0.20
12	8	72.7	62.3	—10.4	30.15	29.67	—0.48
Av.		79.4	77.8	— 1.6	29.94	29.69	—0.24
Regular Hybrids							
1	40	79.6	82.3	+ 2.7	29.80	30.06	+0.26
2	38	83.5	83.6	+ 0.1	54.09	53.89	—0.20
3	38	82.4	81.5	— 0.9	60.89	60.89	0.00
5	56	78.5	83.5	+ 5.0	44.33	44.08	—0.25
6	60	71.0	66.8	— 4.2	45.65	45.70	+0.05
8	56	80.6	81.5	+ 0.9	36.95	37.41	+0.46
9	54	82.1	77.9	— 4.2	28.78	29.73	+0.95
10	36	79.6	74.8	— 4.8	21.75	21.90	+0.15
11	26	78.2	74.5	— 3.7	15.04	14.83	—0.21
12	37	74.7	65.4	— 9.3	45.00	41.79	—3.21
Av.		79.0	77.2	— 1.8	38.23	38.03	—0.20

TABLE 10. ANALYSIS OF VARIANCE OF FIELD WEIGHTS OF THE THREE GROUPS OF SECTION ENTRIES IN 1936.

Source of variation	Northern Section		North Central Sec.		South Central Sec.		Southern Section	
	Degrees of freedom	Mean square	Degrees of freedom	Mean square	Degrees of freedom	Mean square	Degrees of freedom	Mean square
Regular Open-Pollinated								
Variety	9	86.14**	9	36.09*	6	21.31	4	21.38**
Seed Treatment	1	0.85	1	15.46	1	34.31	1	27.48**
Field	2	4178.29**	1	772.25**	1	606.11**	2	1455.16**
Variety x Treatment	9	2.09	9	5.11	6	15.05	4	5.46
Variety x Field	18	36.88**	9	24.73	6	10.92	8	6.94**
Field x Treatment	2	4.13	1	11.42	1	33.91	2	9.42*
Experimental Error	234	6.06	153	14.56	102	19.95	104	2.61
Regular Hybrids								
Variety	36	130.42**	59	75.90**	60	79.48**	40	51.26**
Seed Treatment	1	0.45	1	1.25	1	1.60	1	447.85**
Field	2	32753.16**	1	1614.49**	1	2775.98**	2	21475.68**
Variety x Treatment	36	8.30**	59	17.29**	60	20.24	40	6.22**
Variety x Field	72	44.66**	59	18.41**	60	31.60**	80	13.93**
Field x Treatment	2	5.81	1	98.32**	1	12.05	2	216.78**
Experimental Error	936	6.48	1003	15.17	1020	26.32	1040	4.40
Experimental Hybrids								
Variety	19	73.00**	13	36.25**	36	38.25**	17	11.13**
Field	2	7146.82**	1	556.01**	1	1023.23**	2	6543.10**
Variety x Field	38	29.92**	13	32.64**	36	35.30**	34	8.03**
Experimental Error	216	7.25	96	13.67	280	23.44	192	4.03

* Significant.
** Highly significant.

seed in either the regular open-pollinated or regular hybrid classes in the three northern-most sections. In the Southern Section, however, there was a highly significant difference in yield between the treated and untreated groups, but the surprising feature is that the treated group yielded less and had a lower stand than the untreated lots. The data in table 9 show, however, that all of this difference in yield is confined to District 12 where the treated lots yielded 3.21 bushels per acre less than the untreated and had a 9.3 percent decrease in stand. The results of seed treatment in the previous years of the Iowa Corn Yield Test have not consistently shown an increase in yield of the treated lots of seed, but no marked decrease due to treatment was observed until this year. The fact that there was a highly significant decrease in one field indicates that under certain conditions, which are not understood, seed treatment may be harmful.

STATISTICAL ANALYSIS

In considering the differences in yield and other characters of the strains of corn in the yield test it is important to know what portion of the differences is due to errors in sampling and how much is due to real differences between the kinds of corn. This can be determined by an analysis of the data and a determination of the significance of the differences obtained. The method of statistical interpretation known as the analysis of variance was used in treating the data. The analyses for differences in field weight are given in table 10.

PREMIUMS FOR 1936 TEST

The following premiums apply only to the Regular Division:

(1) The Banner Trophy is awarded annually by Raymond A. Pearson, former president of Iowa State College, to the Iowa grower whose entry produces the highest percentage above the average yield of the upper two-thirds of all entries in its class in all the districts of any section. Thus the highest yielding section entries of the two classes compete for the Banner Trophy. Only section entries are eligible.

(2) A gold medal is awarded by the Iowa Corn and Small

Grain Growers' Association in each section to the entrant in each class whose corn produces the highest average yield in all the districts. Only section entries are eligible.

(3) In each district the Association awards a bronze medal for the highest yielding corn in each class entered by a grower residing in the district where the test was made, provided the entry ranks in the upper third.

(4) The highest yielding third of both classes in each district will receive suitable ribbons from the Association.

PLAN FOR 1937

The plan for the 1937 Iowa Corn Yield Test will be completed and mailed to those interested after the Annual Farm and Home Week.